

***NCERT CONTRIBUTIONS
TO
EXAMINATION REFORM AND TALENT SEARCH
1990 - 2000***

Compiled by

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Foreword

The National Council of Educational Research and Training has been providing significant inputs and academic support, through its various constituents, in different areas of school education, since its inception in 1961. The main source of documentation of these inputs have been the Annual Reports of the NCERT. But it has been observed that the Annual Reports were not easily available to the faculty in the past and these are mostly out of stock for the initial 15-20 years.

The present document entitled 'NCERT Contributions to Examination Reforms and Talent Search 1990-2000' is a decennial compilation of NCERT's inputs in the areas of examination reforms, talent identification/ nurturance and selection of students for Navodaya Vidyalayas. Credit goes to Dr. J. P. Mittal, Reader in Education, Planning, Programming, Monitoring and Evaluation Division for conceiving the idea and developing the document from Annual Reports of the NCERT.

I hope the document will be useful to all those who are concerned with qualitative improvement of school education particularly educational measurement and evaluation and nurturance of talent. It will also be helpful in self-orientation of incoming faculty of NCERT.

R. P. Gupta
Head

C O N T E N T S

Foreword

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I

EXAMINATION REFORMS AND TALENT SEARCH 1990-91

EXAMINATION REFORMS AND TALENT SEARCH

The NCERT has been engaged in several activities related to Measurement and Evaluation, Talent Search, Educational Surveys and Data Processing. The development of innovative strategies for educational evaluation, research and developmental activities directed at examination reform at school stage of education, organisation of national talent search examination, selection of students for admission to the Jawahar Navodaya Vidyalayas, conducting educational surveys to provide data base for educational planning and computerisation, and processing of data related to various research projects and educational surveys constituted some of the major activities of the Department of Measurement, Evaluation, Survey and Data Processing (DMESDP) of the NIE during 1990-91. The Department has been carrying out its activities in collaboration with the Departments/Directorates of Education, and the Boards of Secondary, Higher/Senior Secondary Education in the States and the Union Territories.

Realising the fact that evaluation should be construed as a powerful instrument for improving teaching-learning and as an effective feedback mechanism for the benefit of learners, teachers and parents, the DMESDP had undertaken several activities directed towards examination reform and improvement of evaluation practices during the period under report.

Some highlights of the activities carried out by

the DMESDP during 1990-91 are as follows:

- Organization of the Conference of the Chairmen and the Secretaries of the Boards of Secondary and Senior Secondary Education at the NCERT, New Delhi from 21 to 23 August, 1990. Among other things, the Conference discussed measures for further improvement of questions, question papers and reporting procedures etc., for improving the reliability and validity of examinations; introduction of grading and scaling; introduction of comprehensive continuous evaluation; issues relating to computerisation of examination results and use of computer based analysis for feedback practices, and eradication of malpractices in examinations.
- Development and vetting of unit tests and other tools for evaluation of learning outcomes related to different curricular areas at the school stage.
- Development of evaluation materials in Mathematics and Science in emerging evaluation procedures such as Open Book Examination, Oral Examination and Project Work which can act as alternatives to existing examinations.

Training/Extension Programmes

The DMESDP conducted the following training programmes for the personnel of the Boards of Secondary and Higher Secondary Education:

- The Madhya Pradesh Board of Secondary Education developed revised textbooks for Class IX, based on the NCERT textbooks. These textbooks were prescribed from the year 1990-91. A sample of Unit tests for Class IX was prepared.

In this context a 6-day training programme in educational evaluation, in collaboration with the Board of Secondary Education, Madhya Pradesh was organised from 26 to 31 July, 1990 at Dhar.

- A 10-day programme for teachers and teacher educators on Alternative Evaluation Procedures in Examination was organised from 29 October to 7 December, 1990 at the NCERT, New Delhi. In this programme teachers and teacher educators from Kerala, Karnataka, Tamil Nadu, Andhra Pradesh, Maharashtra, Rajasthan, Haryana, Tripura,

Orissa and Delhi participated. Besides discussing evaluation procedures such as Closed Book Examination, Open Book Examination, Oral Examination and Project Work, training was given in the development of evaluation materials based on papers in Economics. In addition, researchable areas on examinations, management of examinations, and scaling and grading as alternative strategies of examination reform were also discussed.

- In a 7-day Paper Setters Workshop for the Board of Secondary Education, Orissa, organised at Puri from 12 to 18 December 1991, question papers in English, Oriya, Physics, Chemistry, Biology, Mathematics, History, Geography, Civics and Economics were designed. In addition, DMESDP provided support to the Board of Secondary Education, Orissa in the context of scaling and grading, in a meeting held at Puri from 24 to 26 October, 1990.

The details of other workshops/meetings/orientation programmes are given in Table 1

TABLE 1

*Workshops, Meetings, Training/Orientation Programmes
organised by the DMESDP during 1990-91*

S No	Title of the Programme	Dates	Venue	No of participants
1	Development of Glossary of Technical Terms in Educational Evaluation	17 to 21 September, 1990	NCERT, New Delhi	5
2	Development of Oral Exercises in English for Class VIII	3 to 10 October, 1990	NCERT, New Delhi	9
3	Development of Unit Tests in Political Science for Class XI	12 to 16 November, 1990	NCERT, New Delhi	11
4	Development of Comprehensive Educational Evaluation Package for Secondary Classes in Science	7 to 11 January, 1991	NCERT, New Delhi	20

<i>S No</i>	<i>Title of the Programme</i>	<i>Dates</i>	<i>Venue</i>	<i>No of Participants</i>
5	Scheme of Formative Evaluation In Science (Class VIII)	4 to 8 February, 1991	NCERT, New Delhi	13
6	Development of Graded Map Exercises in Geography for Class VII	6 to 8 February, 1991	NCERT, New Delhi	6
7	Development of material for Alternative Evaluation Procedures in Mathematics	18 to 26 February, 1991	NCERT, New Delhi	8
8	Development of Unit Tests in Chemistry for Class XII	11 to 15 March, 1991	NCERT, New Delhi	15
9	Workshop for vetting the Unit Tests developed in Political Science for Class XI	11 to 15 March, 1991	NCERT, New Delhi	7
10	Workshop for vetting the Material developed in the programme titled 'Development of Comprehensive Educational Evaluation Package for Secondary Classes in Science'.	18 to 22 March, 1991	NCERT, New Delhi	11
11	Training Workshop in Educational Evaluation for the Board of High School and Intermediate Education, Uttar Pradesh	24 to 4 June, 1990	Gochar (Uttar Pradesh)	44
12	Training Workshop in Educational Evaluation for the Board of Secondary Education, Madhya Pradesh	26 to 31 July, 1990	Dhar (Madhya Pradesh)	46
13.	Training Workshop in Educational Evaluation for the Directorate of Education (Andaman and Nicobar Islands Administration)	15 to 19 November, 1990	Port Blair (A & N Islands)	22
14	Training Workshop in Educational Evaluation for the Board of Secondary Education, Orissa	12 to 18 December, 1990	Puri (Orissa)	49
15	Training Workshop in Educational Evaluation for the Goa Board of Secondary and Higher Secondary Education	16 to 22 January, 1991	Mapusa (Goa)	77
16	Training of Key Persons on Alternative Evaluation Procedures in Examinations in Economics	October 29 to 7 November, 1990	NCERT, New Delhi	13
17	All-India Training Programme in Evaluation in History	21 to 27 November, 1990	NCERT, New Delhi	22
18	Annual Meeting of the Chairmen and Secretaries of the State Boards of Secondary Education	21 to 23 August, 1990	NCERT, New Delhi	36

Research Studies

The following research studies were undertaken during the period under report:

Attainment of Primary School Children in Various States in the country

Under this project, the DMESDP organised three meetings of experts in Language and Arithmetic. These expert groups finalised the tools and the questionnaires on the basis of try-out and item analysis. Majority of the States have conducted these tests and got the questionnaires filled in.

Study of Scholastic Achievement of Students at Class X and Class XII levels

In pursuance of the observations of the Central Advisory Board of Education (CABE), an All India Survey of Educational Achievement at Class X and Class XII levels was undertaken. The test was held all over the country on 21 January, 1990. 2,47,933 students at the level of Class X and 1,58,919 students at the level of Class XII appeared in the test. The scoring and analysis of test responses were completed during the period under report. It may be stated that the school variables like location and management, students variables like sex and social class; and parent variables like educational and income levels of parents were kept in focus while studying the level of achievement of students.

National Talent Search

The NCERT has been implementing a National Talent Search Scheme (NTS) with the main objective of identifying brilliant students at the end of Class X and giving them financial assistance to help them get good education so that their talent may develop further and they may best serve the country by excelling in their chosen disciplines. Under the NTS Scheme, 750 scholarships, including 70 scholarships for the Scheduled Caste and Scheduled Tribe students are awarded each year.

The selection of students for the award of scholarships under the NTS Scheme is done at two levels. The first level selection was done by the States and the Union Territories through a written examination held during October, 1989 and January, 1990. On the basis of the performance of the students in the state level test, a stipulated number of candidates were recommended for the second level test. This national level test was held at 32 centres by the NCERT on 13 May, 1990 to select the requisite number of awardees. Some candidates who are Indian citizens and presently studying abroad in Class X, also appeared in the National Level test conducted by the NCERT.

During the year 1990-91, 3,066 students appeared in the second level test. 750 students, including 70 SC and ST students, were selected for the award of scholarships. The details regarding the number of students who appeared in the second level test and the number of scholarships awarded are given in Table 2.

TABLE 2

Number of NTS Scholarship Awarded during 1990

	States/UTs	Quota allotted	No. of Students Appeared in Second Level Test	No. of Scholarships Awarded (General Category)	Reserved Scholarships awarded to SC/ST	Total
1	Andhra Pradesh	225	207	25	5	30
2	Arunachal Pradesh	25	23	-	-	-
3	Assam	75	75	5	2	7
4	Bihar	190	185	43	7	50

1990-91

States/UTs	Quota Allotted	No of Students Appeared in Second Level Test	No of Scholarships Awarded (General Category)	Reserved Scholarships Awarded to SC/ST	Total
5. Goa	25	24	2	-	2
6. Gujarat	150	138	6	2	8
7. Haryana	65	65	14	-	14
8. Himachal Pradesh	30	29	3	-1	4
9. Jammu & Kashmir	45	22	-	-	-
10. Karnataka	150	149	51	5	56
11. Kerala	180	173	42	2	46
12. Madhya Pradesh	175	172	24	7	31
13. Maharashtra	315	314	126	13	139
14. Manipur	25	14	-	1	1
15. Meghalaya	25	24	-	-	-
16. Mizoram	25	11	-	-	-
17. Nagaland	25	21	-	1	1
18. Orissa	140	132	34	2	36
19. Punjab	80	80	15	-	15
20. Rajasthan	140	139	42	3	45
21. Sikkim	25	8	-	-	-
22. Tamil Nadu	215	208	55	2	57
23. Tripura	25	24	4	-	4
24. Uttar Pradesh	500	493	85	4	89
25. West Bengal	245	237	57	13	70
26. A N Islands	10	9	-	-	-
27. Chandigarh	10	10	6	-	6
28. Dadra and Nagar Haveli	10	2	-	-	-
29. Delhi	50	50	40	-	40
30. Daman & Diu	10	5	-	-	-
31. Lakshdweep	10	2	-	-	-
32. Pondicherry	10	10	1	-	1
33. Kuwait	18	3	-	-	-
34. Nepal	2	2	-	-	-
35. Muscat	17	6	-	-	-
Total	3267	3066	680	70	750

The position of NTS Scholars on Rolls during 1990-91 is given in Table 3

1990-91

TABLE .3

Total No. of NTS awardees during 1990-91

S No.	Stage of Education	Number of NTS scholars
1.	+2 Stage	1500
2.	Under Graduate level	280
	Basic Science/Social Sciences	1895
	Engineering	772
	Medicine	
3	Post Graduate level	30
	Basic Sciences	176
	Medicine	16
	Engineering	61
	M B A.	17
	Ph D	
	Total	4747

During the year 1990-91 the scholarships
amounting to Rs 79,00,260 were released to the
NTS Scholarship Awardees

TECHNICAL SUPPORT TO NAVODAYA VIDYALAYAS

The selection of students for admission to the Jawahar Navodaya Vidyalayas in the country has been an important task of the NCERT since 1986-87. All the activities related to the Navodaya Vidyalaya selection of students for admission to the Navodaya Vidyalayas are coordinated by the Navodaya Vidyalaya Cell (NVC) of the NIE, at present a part of the Department of Measurement, Evaluation, Survey and Data Processing (DMESDP). The major activities carried out by the Department during the year 1990-91 included preparation and distribution of the prospectus-cum-application forms, orientation of the Principals of Navodaya Vidyalayas, District Education Officers of the States and other functionaries involved in the conduct of the selection tests, development and printing of the selection tests, conducting the Navodaya Vidyalaya Selection Test for 1990-91 and 1991-92, selection of students for admission to the 261 Navodaya Vidyalayas, and preparation of the Technical Report of the Navodaya Vidyalaya Selection Test.

Preparation and Distribution of the Prospectus-cum-Application Forms

The Prospectus-cum-Application Forms for the Navodaya Vidyalaya Selection Test 1991-92 were developed and printed in 18 regional languages (Assamese, Bengali, English, Garo, Gujarati, Hindi, Kannada, Khasi, Malayalam, Manipuri, Marathi, Mizo, Oriya, Punjabi, Sindhi, Tamil, Telugu and Urdu) were distributed widely through the Offices of the Field Advisers of the NCERT, District Education Officers,

Block Education Officers, etc. The application forms, duly filled in by the candidates, were received by the offices of the District Education Officers. The screening of the application forms was done at the offices of the Principals of Navodaya Vidyalayas and Admit Cards were issued to the students eligible for appearing in the Jawahar Navodaya Vidyalaya Selection Test (JNVST).

Preparation of Selection Test

Several meetings were organised for preparation and finalization of the Navodaya Vidyalaya Selection Test. Three forms of the test were developed and printed in 18 regional languages. The battery of tests included Mental Ability Test, Language Test and Arithmetic Test. The Mental Ability Test had 60 items, while the Language Test and the Arithmetic Test had 20 items each. The Mental Ability Test contained only non-verbal items. This was done with a view to making the selection procedure as culture-neutral as possible and to minimize the bias due to environmental factors. All the items in each of the tests were of objective type. The tests were moderated and translated into the regional languages by experts.

Navodaya Vidyalaya Selection Test 1990-91

The Selection Test for JNVs in 239 districts was conducted on 18 March, 1990. In 15 snowbound Districts (7 in Jammu & Kashmir, 4 each in Himachal Pradesh and Uttar Pradesh), the JNVST-1990 was conducted on 27th May, 1990. Due to certain reason,

1990-91

the Selection Test in 6 Districts of J&K was held on 12 August, 1990 and Selection Test (retest) for the Kargil District of J & K was held on 24 November, 1990. The centres for the examination were set up in each Community Development Block. The District Level Observers (DLOs) and the Centre Level Observers (CLOs) were appointed to oversee the conduct of the tests. Orientation programmes were organised for the Principals of Navodaya Vidyalayas, DLOs, CLOs and Centre Supervisors in order to acquaint them with the procedures involved in the conduct of the test. Necessary guidelines were provided to all the personnel involved in the conduct of the tests. The JNVST-1990 was conducted at 3,254 centres located in 3,039 blocks of 261 districts in 22 States and 7 Union Territories.

Out of 3,43,107 candidates registered for JNVST-1990, 3,14,762 (91.74%) candidates appeared in the test. Of these, 17,445 candidates were selected for admission in 261 JNVs. As per provisions of the Navodaya Vidyalayas Scheme, at least 75% of the seats in each district are to be filled by candidates selected from rural area. During the year 1990-91, 13,252 candidates (75.96%) were selected from rural areas and 4,193 candidates (24.04%) were selected from urban areas. Of the selected candidates, 67.47% (11,771) were boys and 32.53% (5,674) were girls.

The scheme of Navodaya Vidyalayas stipulates reservation of the at least 15 per cent seats for SCs and 7.5% seats for STs. This reservation is over and above the positions attained by the SCs and STs in open

merit. In the JNVST-1990, out of 17,445 selected candidates, 3,440 (19.72%) belonged to SCs and 1,787 (10.24%) to STs. The remaining 12,218 (70.04%) were from general category including Other Backward Classes.

Navodaya Vidyalaya Selection Test 1991-92

The test for selection of students for admission to the Jawahar Navodaya Vidyalayas for the academic session 1991-92 was conducted on 10 March, 1991 at 2,753 centres located in 2,607 Blocks in 219 districts of the country. Of the 3,15,832 registered candidates, 2,91,093 (92.17%) candidates appeared in the test. During the period under report, preparations were also made for conducting the Selection Test on 4 May 1991 for admission to remaining 42 Jawahar Navodaya Vidyalayas.

Preparation of the Technical Report of the JNVST 1989-90

The technical report of the Navodaya Vidyalaya Selection Test conducted in 1989-90 was prepared and published during 1990-91. The report included item-analysis and comparison of performance of the candidates from different States/UTs and belonging to different categories. The work on preparation of the report of the JNVST 1990-91 was also initiated. In addition to these, the general report of the JNVST 1990-91 was also prepared.

II

EXAMINATION REFORMS AND TALENT SEARCH

1991-92

EXAMINATION REFORMS AND TALENT SEARCH

Examination Reform

The NCERT has been engaged in several activities related to Measurement and Evaluation and Talent Search. The development of innovative strategies for educational evaluation, research and developmental activities directed at examination reform at school stage of education, organization of national talent search examination, selection of students for admission to the Jawahar Navodaya Vidyalayas constituted some of the major activities of the Department of Measurement, Evaluation, Survey and Data Processing (DMESDP) of the NIE during 1991-92. The Department has been carrying out its different activities in collaboration with the Departments/Directorates of Education, Boards of Secondary/Higher Secondary/Senior Secondary Education in the States and Union Territories.

Evaluation is an integral part of teaching and learning process. The ultimate objective of evaluation is to bring about qualitative

improvement in education. Therefore, evaluation should be construed as a powerful instrument for developing all round personality of the child. For this, it is necessary to make evaluation continuous and comprehensive. Keeping in view the above framework, the DMES&DP undertook several activities directed towards examination reform and improvement of evaluation practices during the period under report. The major activities carried out during 1991-92 include the following:

- (i) Unit tests were developed in Science and Social Sciences for evaluating the learning outcomes related to these curricular areas at the school stage.
- (ii) Objective based test items were prepared for assessing Computer Science at the first year of +2 stage
- (iii) Diagnostic tests were prepared in Arithmetic and Hindi for classes I and III for diagnosing weaknesses of the children and providing remedial measures for improvement in learning.

- (iv) Oral Exercises were developed in English for Upper Primary Stage for helping teachers in teaching spoken English. These exercises, which were tried out in different schools, would be printed for wider use by the teachers of English.
- (v) A set of recommendations on 'Continuous Comprehensive Evaluation in Schools' was sent to SCERTs, State Departments of Education, Boards of Secondary Education and various Teachers Training Colleges in the country. A package on 'Alternative Evaluation Procedures in Examination' was also circulated to various agencies concerned with examinations.
- (vi) The Department organized a selection test for selecting a candidate for representing India in the Plain English Speaking contest held in Australia every year. The selection was done from among those students who were deputed by various Boards of Secondary Education in the country.
- (vii) A four week Training Course for five Research and Development Officers from Mauritius Examinations Syndicate (MES), Mauritius was organized from 3 to 27 February 1992 at the NCERT Campus, New Delhi. In this programme, which was conducted in response to the request received from the Director, MES, Mauritius, the officers were thoroughly oriented in the area of educational testing, evaluation and research methodology.

Workshops/Meetings

As a part of the developmental activities directed at examination reform and improvement of evaluation practices in schools, the DMES&DP organized some workshops/meetings/orientation training courses during 1991-92.

An eight-day orientation programme for key-persons on 'Alternative Evaluation Procedures in Examination' was organized from 22 to 29 October 1991. A package on the subject containing 10

chapters covering different aspects of examination was circulated during the programme. More than 25 participants from Boards of Secondary and Senior Secondary Education, SCERTs, Training Colleges and University Departments of Education from Andhra Pradesh, Assam, Manipur, Haryana, Jammu and Kashmir, Punjab, Rajasthan, Gujarat, Uttar Pradesh, Orissa, Karnataka, Meghalaya, Maharashtra, Tamil Nadu, Delhi and Chandigarh attended the programme. Among other things, the need for perceiving examination in its totality was emphasised at this meet.

A week long programme on "Issues in Objective Based Testing in History" was organized by DMES&DP at Delhi in October 1991. The objective was to provide intensive training to teacher educators so that they, in turn, could communicate effectively the concepts of evaluation and related problems to pupil teacher educators during pre-service teachers training programmes.

The need for introducing Continuous Comprehensive Evaluation (CCE) in all the schools immediately was emphasised in a three-day meet on the subject held from 2 to 4 December 1991. It would enable teachers to assess the total achievement and personality of learners and for improving teaching-learning strategies. This recommendation is in tune with the spirit of the National Policy on Education (NPE) 1986. The meet pointed out that Continuous Comprehensive Education should include not only scholastic achievement but also Work Experience, Physical and Health Education and Art Education. The assessment should be done periodically throughout the year. As regards weightage, it was recommended that the closed-book written examination should be for 50% marks and the open-book examination should have weightage of 20%. Another 20% marks should be earmarked for projects/assignments. It was also emphasised that 10% of marks should be for oral examination.

The DMES&DP provided technical support to the Manipur Board of Secondary Education and the Madhya Pradesh Board of Education by conducting training programmes for their personnel in paper setting.

Research Activities

The work on the DMES&DP research project titled "Attainment of Primary School Children in Various States of the Country" is in progress. The research study seeks to find out answers to the following questions:

- Do the pupils learn to a satisfactory level and what are they expected to learn in the first Language and Mathematics at the end of Class IV?
- Is the level of learning reasonably uniform over the States?
- What are variables related to school, home and pupils that affect learning?

The study has covered 22 States and the Union Territory of Delhi. The report of the study is likely to be prepared by July, 1992.

Publications

During 1991-92, the DMES&DP brought out the

following publications for use of the personnel engaged in tasks related to examination reform:

- (i) Analysing of Biology Question Papers
- (ii) Objective Based Questions in Science for Class VI
- (iii) Open Book Evaluation in Science
- (iv) Unit Tests in Science (Biology) for Class IX
- (v) Instructional Objectives in Biology
- (vi) Package on Alternative Evaluation Procedures in Examination
- (vii) Development of Objective Based Questions Testing different Specific Specifications in Physics
- (viii) Communicative Tests of Reading and Writing in English
- (ix) Unit Tests in Political Science for Class XI

The details of workshops, meetings, training programmes, seminars etc., organized by DMES&DP during 1991-92 are given in Table below.

Table

Workshops/Meetings/Seminars/Conferences/Training/Orientation Programmes organized by DMES & DP during 1991-1992

<i>S No</i>	<i>Title of the Programme</i>	<i>Dates</i>	<i>Venue</i>	<i>No. of Participants</i>
EXAMINATION REFORM				
<i>Development Programmes</i>				
1	Development of Sample Tests for the Evaluation Packages for Secondary Classes in Science	19 to 23 August, 1991	NCERT, New Delhi	21
2	Development of Diagnostic Tests and Procedures at Primary Stages	19 to 23 August, 1991	NCERT, New Delhi	11
3	Development of Oral Exercises for Class VIII	27 to 28 August, 1991	NCERT, New Delhi	5
4	Criterion Referenced Tests in Science for Classes VI, VII, VIII	7 to 11 October, 1991	NCERT, New Delhi	13
5	Development of Unit Tests in Political Science for Class XII	21 to 25 October, 1991	NCERT, New Delhi	7

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S.No	Title of the Programme	Dates	Venue	No of Participants
6	Development of Unit Tests in Physics for Class XII	9 to 12 December, 1991	NCERT, New Delhi	13
7	A Status Study of Social Sciences Question Papers of Public Examinations of Classes X-XII	20 to 24 January, 1992	NCERT, New Delhi	21
8	Development of Oral Exercises (Consolidation of Experiences of the Try-Out)	27 to 29 January, 1992	NCERT, New Delhi	5
9	Analysis of School Syllabi of different States/ Union Territories across Subjects and Classes	3 to 6 March, 1992	NCERT, New Delhi	19
10	Vetting Workshop for Development of Oral Exercises for Class VIII	9 to 13 March, 1992	NCERT, New Delhi	5
11.	A Status Study of Science Question Papers of Public Examinations of Classes X-XII	9 to 13 March, 1992	NCERT, New Delhi	19
12	Vetting Workshop for development of Diagnostic Tests and Procedure at Primary Stage	23 to 27 March, 1992	NCERT, New Delhi	6
13	Development of Objective-Based Test Items for First Year of Computer Science at Plus two Stage	30 March to 3 April, 1992	NCERT, New Delhi	15
14.	Vetting Workshop on Criterion Referenced Tests in Science for Class VII	30 March to 3 April, 1992	NCERT, New Delhi	14
15	Vetting Workshop on development of Unit Tests in Political Science for Class XII	30 March to 3 April, 1992	NCERT, New Delhi	21

EXAMINATION REFORM

Training and Extension Programmes

1.	Selection Tests for Selecting a XII Class Student for Plain English Speaking Award — An Annual Competition for Senior Secondary School Students to be held at Australia	30 July to 1 August, 1991	NCERT, New Delhi	7
2	Workshop for Training in Educational Evaluation for the Board of Secondary Education, Manipur	18 to 25 September, 1991	Imphal, Manipur	45
3	Issues in objective-based Testing in History	3 to 9 October, 1991	NCERT, New Delhi	14
4	Orientation of Key Persons on Alternative Evaluation Procedures in Examinations	22 to 29 October, 1991	NCERT, New Delhi	25
5.	Orientation of Boards' Officers on Comprehensive Evaluation in Schools	2 to 4 December, 1991	NCERT, New Delhi	21
6	Workshop for Training in Educational Evaluation the Board of Secondary Education, Madhya Pradesh	15 to 21 January 1992	Jabalpur, Madhya Pradesh	48
7.	Training Course in Educational Testing and Evaluation for Mauritius Officers	3 to 27 February, 1992	NCERT, New Delhi	5

Talent Search

The NCERT under its National Talent Search Scheme awards 750 scholarships including 70 scholarships for Scheduled Castes/Scheduled Tribes candidates each year. The purpose of this scheme is to identify brilliant students at the end of Class X and give them financial assistance towards getting good education so that their talent may develop further and they may serve the discipline of their choice as well as the country.

The selection for the award under the National Talent Search Scheme is done at two stages. The

first stage selection was done by the States/Union Territories through written examination during the period from October 1990 to January 1991 on the basis of which the stipulated number of candidates were recommended to the NCERT for the second level test. The second level examination was held by the NCERT on 12 May 1991 to select the requisite number of awardees. The examination was conducted at 32 Centres all over India.

The details of the number of NTS Scholarships awarded by the NCERT during 1991 are given below:

<i>S No</i>	<i>Name of States/UTs</i>	<i>Quota allotted</i>	<i>No of students who appeared in Second</i>	<i>No of scholarship awarded (General)</i>	<i>Reserved scholarship awarded to SC/ST</i>
1	Andhra Pradesh	225	221	43	5
2	Arunachal Pradesh	25	21	-	-
3	Assam	75	75	11	-
4	Bihar	190	188	61	6
5	Goa	25	24	3	-
6	Gujarat	150	137	14	-
7	Haryana	65	63	15	-
8	Himachal Pradesh	30	30	7	1
9	Jammu and Kashmir	45	39	-	-
10	Karnataka	150	148	26	5
11	Kerala	180	179	37	6
12	Madhya Pradesh	175	171	26	2
13	Maharashtra	315	314	130	17
14	Manipur	25	25	-	-
15	Meghalaya	25	24	2	-
16	Mizoram	25	19	-	-

1991-92

S.No.	Name of States/UTs	Quota allotted	No. of students who appeared in Second	No of scholarship awarded (General)	Reserved scholarship awarded to SC/ST
17.	Nagaland	25	22	-	-
18.	Orissa	140	135	18	4
19.	Punjab	80	80	16	2
20	Rajasthan	140	140	40	3
21.	Sikkim	25	18	-	-
22	Tamil Nadu	215	213	41	8
23	Tripura	25	25	3	1
24	Uttar Pradesh	500	493	79	2
25	West Bengal	245	239	63	7
26	A & N Islands	10	10	-	-
27	Chandigarh	10	10	7	-
28	Dadra & Nagar Haveli	10	3	-	-
29	Delhi	50	49	37	-
30.	Daman, Diu	10	2	-	-
31	Lakshadweep	10	2	-	-
32	Pondicherry	10	10	1	1
33	Kuwait	-	1	-	-
34	Muscat	-	11	-	-
Total		3213	3160	680	70

Total No. of awardees during 1991-92

Under Graduate Level

Plus Two Stage

XII 746
 XI 749

1495

Basic Sciences	170
Social Sciences : B A /B.Com.	63
Engineering	2078
Medicine	777

Post Graduate Level

Basic Sciences	19
Social Sciences	9
Engineering/M.E./M.Tech.	7
Medicine	104
M.B.A.	55
M.C.A.	7
Ph.D.	7
Total:	4791

Expenditure under NTS during 1991-92

i) Disbursement of Scholarship	Rs. 69,96,592.00
ii) Summer Schools/ Placement	Rs. 66,000.00
iii) Conduct of Examinations	Rs. 5,38,764 00
Total	Rs. 76,01,356.00

Technical Support to Navodaya Vidyalayas

The selection of students for admission to the Jawahar Navodaya Vidyalayas in the country has also been an important talent search task of the NCERT since 1986-87. All the activities related to the Navodaya Vidyalaya Selection Test and selection of students for admission to the Navodaya Vidyalayas are coordinated by the Navodaya Vidyalaya Cell (NVC) of the NIE at present a part of the Department of Measurement, Evaluation, Survey and Data Processing (DMES&DP). The major activities carried out by the Department during the year 1991-92 include preparation and distribution of the prospectus-cum-application forms, orientation of the Principals of the Navodaya Vidyalayas and other functionaries involved in the conduct of the selection tests, development and printing of the selection tests, and conduct of the Navodaya Vidyalaya Selection Tests.

Preparation and Distribution of the Prospectus-cum-Application Forms : The Prospectus-cum-Application Forms for the Navodaya Vidyalaya Selection Test 1991-92 were developed and printed in 18 regional languages (Assamese, Bengali, English, Garo, Gujarati, Hindi, Kannada, Khasi, Malayalam, Manipuri, Marathi, Mizo, Oriya, Punjabi, Sindhi, Tamil, Telugu and Urdu). The Prospectus-cum-Application Forms were distributed widely through the offices of the Field Advisers of the NCERT, District Education Officers, Block Education Officers, etc. The application forms, duly filled by the candidates were received by the officer of the District Education Officers. The screening of the application forms was done in the offices of the Principals of the Navodaya Vidyalayas and Admit Cards were issued to the students who were found eligible for appearing in the Jawahar Navodaya Vidyalaya Selection Test (JNVST).

Preparation of Selection Tests : Several meetings were organized for preparation and finalization of the Navodaya Vidyalayas Selection Tests. Six forms of the test were developed and printed in 18 regional languages (19 versions). The battery of tests included Mental Ability Test, Language Test and Arithmetic Test. The Mental Ability Test had 60 items, while the Language Test and the Arithmetic Test had 20 items each. The Mental Ability Test contained only non-verbal items. This was done with a view to making the selection procedure as culture-neutral as possible and to minimise the bias due to environmental factors. All the items of the tests were of objective type.

Of 3,32,064 candidates registered for JNVST 1991, the number of candidates appeared was 2,91,277. As per the provisions of the Navodaya Vidyalaya Scheme, at least 75% of the seats in each district are to be filled by rural candidates and 25% of seats are to be filled by Urban candidates. The Scheme also stipulates reservation of 15% seats for SCs and 7.5% for STs. This is over and above the positions/seats attained by the SC/ST students in the Open Merit.

III

EXAMINATION REFORMS AND TALENT SEARCH 1992-93

EXAMINATION REFORMS AND TALENT SEARCH

Examination Reform

The NCERT is engaged in several activities related to measurement and evaluation in the area of Examination Reform. The programmes and activities of the Department of Measurement, Evaluation, Survey and Data Processing (DMESDP) are specifically directed towards creating awareness about continuous comprehensive evaluation, encouraging the use of

evaluation for diagnostic purposes, development of evaluation tools for different subjects and classes, training of paper-setters, examiners and resource persons in educational evaluation, coordination of examination reform activities and providing advisory services to the examination bodies. The Department has been carrying out its programmes and activities in collaboration with Departments/Directorates of Education, and Boards of Secondary/Higher Secondary

Education in the States and the Union Territories. Highlights of the programmes and activities carried out by the DMESDP in the area of examination reform during 1992-93 are as follows.

Development

- (i) Under the Status Study of Questions of Public Examinations, the question papers in English, Hindi, Tamil, Telugu, Malayalam, Kannada, Gujarati, Marathi, etc. were analysed in a workshop. The Report of the Status Study is under finalisation.
- (ii) Sample Diagnostic Tests in Arithmetic for Classes I to IV have been prepared. These tests would help the teachers in diagnosing factors responsible for certain weaknesses of pupils for which appropriate remedial measures could be provided.
- (iii) Criterion Referenced Tests in Science for Classes VI and VII have been finalised.
- (iv) Sample test materials, with objective-based questions in Civics for Upper Primary Classes (VI to VIII) based on the NCERT textbooks, have been developed.
- (v) A Manual for paper-setters and Examiners has been developed.
- (vi) A set of recommendations finalised by the Boards of School Education/Secondary Education in a seminar on continuous and Comprehensive Evaluation in Schools has been sent to the Education Secretaries and the Directors of Education for taking appropriate follow-up action.

Training and Extension

- (i) A conference of Chairpersons of the Boards of School Examinations in India was organised at Mussoorie (Uttar Pradesh) from 6 to 8 July 1992 to discuss certain problems and issues related to examination reforms including the semester system. The conference provided

opportunity for better understanding of the problems related with pupil evaluation, standards of education and introducing changes in the policies and practices of evaluation. As a follow-up of the conference, the COBSE organised two zonal meetings to discuss issues related to semesterisation and examination reform. The DMESDP has been making efforts to persuade the Boards to implement recommendations of the National Policy on Education (NPE) and the Programme of Action (POA) on the NPE.

- (ii) The DMESDP organised two training programmes in September 1992 for the resource persons of the Manipur School Examination Board, Imphal and the Assam School Council, Guwahati for finalising question papers in various subjects with the aim of improving their quality in future.
- (iii) Four workshops for setting balanced question papers were organised for (i) Karnataka School Examination Board, (ii) J&K Board of School Education, (iii) Uttar Pradesh Board, and (iv) the Council for Indian School Certificate Examinations for giving training to the paper-setters and resource persons. Sample question papers were also developed to guide teachers and paper-setters and for scoring of answer scripts.
- (iv) A two-week training course for 15 officers of the Indian Air Force was organised during November-December 1992 to reorient them about the tools and techniques of evaluation.

Research

The DMESDP has been conducting the research project entitled 'Attainment of Primary School Children' in 22 States and the Union Territory of Delhi. The reports of the States/UT were discussed in a four-day meeting and finalised along with the national report.

1992-93

Open House

The DMESDP organised a panel discussion on 'Can We Do Away with Examinations?' as an open-house activity during the 31st anniversary celebrations of the NCERT. The audience favoured the views of the DMESDP with regard to abolition of public examinations and switching to Comprehensive and Continuous Evaluation in schools at all levels.

Publications

- (i) Technical Terms in Educational Evaluation: An Explanatory Glossary
- (ii) Instructional Objectives in Chemistry with illustrative examples

- (iii) Objective-based Questions in Biology for Class XI
 - (iv) Objective-based Questions in Biology for Class XII
 - (v) Alternative Evaluation Techniques to be incorporated in the Scheme of Continuous Comprehensive Evaluation
 - (vi) Multiple-choice Questions in Political Science for Class XII
 - (vii) Unit Tests in Chemistry for Class XII
 - (viii) Test Items for Classes VII and VIII Science Scheme for Formative Evaluation
- The details of workshops, meetings, training/orientation programmes, seminars, etc. organised by DMESDP during 1992-93 are given in Table 1.

TABLE 1

Workshops/Meetings/Seminars/Conferences/Training/Orientation Programmes Organised by DMESDP during 1992-93

S.No	Title of the Programme	Dates	Venue	No. of Participants
DEVELOPMENT				
1	A Status Study of the Question Papers of Public Examinations for Classes X to XII	28 September to 1 October 1992	NCERT, New Delhi	27
2	Preparation of Test Materials for Classes VI, VII and VIII in Civics	29 September to 1 October 1992	NCERT, New Delhi	18
3	Development of Test Materials in English for Class X (Course B)	29 October to 4 November 1992	NCERT, New Delhi	9
4	Development of Diagnostic Tests and Procedures at Primary Stage (Arithmetic and Hindi)	14 to 18 September 1992	NCERT, New Delhi	12
5	Workshop on Development of Question Bank in Geography for Class IX (based on NCERT Syllabi)	14 to 20 October 1992	NCERT, New Delhi	14
6	Preparation of Test Materials for Classes VI, VII and VIII in Civics	11 to 15 January 1993	NCERT, New Delhi	15
7	Identification of Themes for Project Work and Their Evaluation Procedure in Economics	4 to 8 January 1993	NCERT, New Delhi	20
8	Development of Diagnostic Tests and Procedure at Primary Stage (Hindi)	23 February to 26 March 1993	NCERT, New Delhi	9
9	Vetting Workshop for Vetting and Finalising the Test Materials (Development for Classes VI, VII and VIII in Civics)	23 to 26 March 1993	NCERT, New Delhi	8

1992-93

S No	Title of the Programme	Dates	Venue	No. of Participants
10	Development of Scheme on Comprehensive Continuous Evaluation in Schools	10 to 12 February 1993	NCERT, New Delhi	19
11	Workshop on Scaling and Grading for Public Examinations	1 to 3 March 1993	NCERT, New Delhi	10
12	Vetting Workshop on Development of Question Bank in Geography for Class X (based on NCERT Syllabi)	30 March to 3 April 1993	Chandigarh	14
13	Criterion Referenced Tests in Science for Classes VI, VII and VIII (Supplementary Workshop)	1 to 5 March 1993	NCERT, New Delhi	6
14	Vetting Workshop for Development of Manual for Paper-setters and Examiners	16 to 19 March 1993	NCERT, New Delhi	8
15	Vetting Workshop for Vetting and Finalising the Material Developed in English for Class X (Course B)	15 to 19 March 1993	NCERT, New Delhi	6
16	Workshop on Development of Question Bank in Geography for Secondary Classes (Class IX) based on NCERT Syllabi	—	NCERT, New Delhi	14
17	Vetting Workshop for Vetting and Finalising Material Developed in the Workshop for Development of Question Bank in Geography for Secondary Classes (Class IX) Based on NCERT Syllabi	7 to 11 December 1992	NCERT, New Delhi	9
TRAINING				
18	Conference of Chairmen of Boards of School Education	6 to 8 July 1992	Musoorie	14
19	Workshop on Educational Evaluation for Karnataka Secondary Education Examination Board	15 to 22 January 1993	Bangalore	48
20	Workshop on Educational Evaluation for Jammu and Kashmir State Board of School Education	22 to 26 December 1992	Jammu	53
21	Workshop on Educational Evaluation for Board of High School and Intermediate Education	22 to 29 March 1993	Allahabad	36
22	Workshop on Educational Evaluation for Council for the Indian School Certificate Examination	29 March to 2 April 1993	Hyderabad	54
23	Training Course in Sample Survey Methods in Education	28 October 1992 to 6 January 1993	Udaipur	17
24	Training Course on Examination Techniques for Indian Air Force Officers	23 September to 4 December 1992	NCERT, New Delhi	15
ATTAINMENT OF PRIMARY SCHOOL CHILDREN IN VARIOUS STATES				
25	Meeting of State Coordinators	14 to 16 July 1992	NCERT, New Delhi	11

1992-93

Talent Search

In the area of talent search, the NCERT is conducting the following two major programmes:

- (i) National Talent Search
- (ii) Technical Support to Jawahar Navodaya Vidyalayas

National Talent Search Scheme

The NCERT, under its National Talent Search (NTS) Scheme, awards 750 scholarships including 70 scholarships for SC/ST candidates each year. The purpose of this scheme is to identify brilliant students at the end of Class X and give them financial assistance towards getting good education so that their talent may develop further and they may serve the discipline of their choice as well as the nation.

The selection for award under the NTS scheme is done in two stages. The first-stage selection is done by the States/Union Territories through written examination conducted usually between October and December. On the basis of this examination, a stipulated number of candidates are recommended to the NCERT for the second level test. The second-stage selection involves both written examination as well as interview for selection of the requisite number of awardees. The DMESDP not only awards scholarships to the selected candidates, but also organises suitable summer institutes to nurture candidates' talents with assistance and cooperation of leading institutions of the country.

The details of the number of NTS scholarships awarded by the NCERT during 1992 are given in Table 2.

TABLE 2
Number of NTS Scholarships Awarded during 1992

S No	Name of States/UT	Quota Allotted	No of Students who Appeared in Second Level Test	No of Scholarships Awarded (General)	Reserved Scholarships Awarded to SC/ST
1	Andhra Pradesh	195	195	32	4
2	Arunachal Pradesh	25	25	—	—
3	Assam	85	85	9	—
4	Bihar	175	175	51	4
5	Goa	25	25	1	—
6	Gujarat	170	170	5	—
7	Haryana	65	65	18	—
8	Himachal Pradesh	45	45	5	2
9	Jammu & Kashmir	25	25	—	—
10	Karnataka	170	170	41	12
11	Kerala	195	195	48	2
12	Madhya Pradesh	155	155	22	2
13	Maharashtra	375	375	135	14
14	Manipur	25	25	—	—
15	Meghalaya	25	25	—	1
16	Mizoram	25	24	—	—

1992-93

S No	Name of States/UT	Quota Allotted	No of Students who Appeared in Second Level Test	No. of Scholarships Awarded (General)	Reserved Scholarships Awarded to SC/ST
17	Nagaland	25	25	—	—
18	Orissa	120	120	27	4
19	Punjab	85	85	23	1
20	Rajasthan	130	130	46	3
21	Sikkim	25	19	—	—
22	Tamil Nadu	245	245	39	6
23	Tripura	25	14	—	—
24	Uttar Pradesh	435	435	86	4
25	West Bengal	255	255	47	8
26	A&N Islands	10	10	—	—
27	Chandigarh	10	10	7	—
28	Dadra and Nagar Haveli	10	6	—	—
29	Delhi	55	55	37	2
30	Daman & Diu	10	2	—	—
31	Lakshadweep	10	2	—	—
32	Pondicherry	10	10	1	—
		3240	3202	680	70

The Total number of NTS scholars on the rolls during 1992-93 are given in the following Table

Total Number of Awardees during 1992-93

+2 Stage		
XII	748	
XI	<u>750</u>	1498

Under Graduate Level

Basic Science	175	
Social Science	66	
B A		
B Com		
B Tech/Engg	1863	
Medicine	741	

Post Graduate Level

Basic Science	14	
Social Science	2	
M Tech/Engg	2	

Medicine	150
Management	39
M C A	2
Ph D	7
Total	<u>4559</u>

Expenditure during 1992-93

1 Disbursement of Scholarship	66,03,992 00
2 Conduct of Examination	5,76,839 00
3 Summer Schools	<u>2,33,200 00</u>
Total	<u>Rs 74,14,031 00</u>

4 2 5 3 *Norodaya Vidyalayas*

The selection of students for admission to the Jawahar

Navodaya Vidyalayas (JNVs) in the country has also been an important talent search task of the NCERT since 1986-87. The activities related to selection of students for admission in the Navodaya Vidyalayas are coordinated by the Navodaya Vidyalaya Cell (NVC), NCERT. The major activities of the NVC during the year 1992-93 included preparation and distribution of the Prospectus-cum-Application Form in 17 regional languages through the Field Advisers of the NCERT, District Education Officers, Block Education Officers and Headmasters of Primary Schools; orientation of the Principals of the JNVs and the District level educational functionaries involved in the conduct of selection tests, development and printing of the selection tests in 17 languages (Bengali, Garo, Assamese, Gujarati, Hindi, Kannada, Khasi, Malayalam, Manipuri, Marathi, Mizo, Oriya, Punjabi, Tamil, Telugu, Urdu and Sindhi) and conduct of the selection test. These tests were conducted for the academic session 1992-93. The NVC also conducted a selection test on 28 February 1993 for admission to the JNVs for the academic session 1993-94.

The battery of tests included 60 items on Mental Ability and 20 items each on Language and Arithmetic. The Mental Ability test contained only non-verbal items. This was done with a view to make the selection procedure as culture-free as possible and to minimise bias due to environmental factors. All the items in each of the tests were of objective type.

Of 4,21,445 candidates registered for JNVST 1992, 3,90,822 candidates appeared and 21,920 got selected. As per provisos of the Navodaya Vidyalaya Scheme, at least 75 per cent of seats in each District are to be filled by rural candidates and 25 per cent of the seats by urban candidates. The scheme also stipulates a reservation of 15 per cent seats for the Scheduled Castes and 7.5 per cent seats for the Scheduled Tribes. This is over and above the positions/seats attained by SC/ST candidates in the open merit. The scheme also envisages 33 per cent reservation of seats for girls.

This is over and above the positions/seats attained by girls in the open merit. The total reservation of seats under the scheme is to the extent of 50 per cent.

IV

EXAMINATION REFORMS AND TALENT SEARCH

1993-94

1993-94

EXAMINATION REFORMS AND TALENT SEARCH

Examination Reform

The NCERT is engaged in several activities related to measurement and evaluation in the area of Examination Reform. The programmes and activities of the Department of Measurement, Evaluation, Survey and Data Processing (DMES&DP) are specifically directed towards creating awareness about continuous comprehensive evaluation, encouraging the use of evaluation for diagnostic purpose, development of evaluation tools for different subjects and classes, training of paper-setters, examiners and resource persons in educational evaluation, coordination of examination reform activities, providing advisory services to the examination bodies. The Department has been carrying out its programmes and activities in collaboration with Departments/Directorates of Education and Boards of Secondary/Higher Secondary Education in the States and the Union Territories. The highlights of the programmes and activities carried out by the DMES&DP in the area of examination reform during 1993-94 are as follows:

Examination Reform Programmes

(i) Frameworks for Continuous and Comprehensive Evaluation for Primary, Upper Primary and Secondary

Stages of education were evolved and circulated to the SCERTs and the Boards of Secondary Education for comments.

(ii) The Tenth Conference of the Chairpersons of the Boards of Secondary and Senior Secondary Education was organised from 2 to 4 February 1994 at the RCF, Bhubaneswar. Tasks emanating from the NPE-1986 and the Revised Programme of Action 1992 for the Boards of School/Secondary Education were thoroughly discussed in the conference.

(iii) Workshops for training paper setters of certain Boards of Secondary Education were conducted with the collaboration of the Boards. The deliberations of the workshops focussed on specific measures such as incorporating questions testing higher abilities in appropriate proportion, effective coverage of the prescribed total syllabus with appropriate weightage to test different parts, incorporation of questions of different forms, and provision of a detailed marking scheme.

The programme of development of a question bank consisting of a large number of items for testing different abilities in Geography was also undertaken.

The faculty of the DMES&DP provided consultancy in the following programmes:

S. No.	Title of the Programme	Dates	Venue	Purpose of Consultancy
1	Evaluation Workshop by Meghalaya Board of Secondary Education	22 to 24 September 1993	Shillong	Development of Evaluation Material in Social Science, Mathematics and Languages

1993-94

S No	Title of the Programme	Dates	Venue	Purpose of Consultancy
2.	Evaluation Workshop by the Professional Examination Board, Madhya Pradesh	6 to 10 December 1994	Bhopal	Oriental of item writers
3	Evaluation Workshop by the Karnataka Secondary Education Examination Board	7 to 9 March 1994	Bangalore	To orient the participants in various concepts related to Measurement and Evaluation

The Department also interacted with the faculty of the National Institute of Education, Sri Lanka, and oriented them in continuous and comprehensive evaluation and research on examinations

Secondary and Senior Secondary School Education
—Agenda

(iii) Framework for Continuous and Comprehensive Evaluation for Upper Primary and Secondary Stages

Publications

- Technical Manual on Scaling and Grading
- Tenth Conference of the Chairpersons of the Board of

The details of workshops, meetings, seminars, conferences, training and orientation programmes conducted by DMES&DP are given in Table

TABLE
Meetings/Seminars/Conferences/Training/Orientation Programmes Organised by the DMES&DP during 1993-94

S.No	Title of the Programme	Dates	Venue	No. of Participants
1	Workshop for Training Key Personnel of the Board of High School and Intermediate Education, Uttar Pradesh, in Educational Evaluation	26 to 30 June 1993	Bhujtal Uttar Pradesh	50
2	Selection Test for selecting one Class XII Student for the Plain English Speaking Award, an Annual Competition for Higher Secondary School Students held at Australia	7 to 9 July 1993	NCERT New Delhi	3
3	Development of Question Bank in Geography for Class XI based on NCERT Syllabi	17 to 23 August 1993	NCERT New Delhi	23
4	Workshop for Development of Framework for Continuous Comprehensive Evaluation at Primary Stage	7 to 10 September 1993	NCERT New Delhi	13
5	Meeting of the Chairpersons of Boards of Secondary and Senior Secondary School Education	2 to 4 February 1994	Bhubaneswar	26
6	Vetting Workshop to finalize the material already developed for Geography Textbooks for Class XI, i.e., Principles of Geography, Part I (Physical Geography) Principles of Geography Part-II (Resources) and Practical Geography based on NCERT Syllabi	18 to 24 March 1994	NCERT New Delhi	13

Talent Search

In the area of talent search, the NCERT is conducting the following three major programmes

- (i) National Talent Search
- (ii) Mathematics Talent Search
- (iii) Technical Support to Jawahar Navodaya Vidyalayas

National Talent Search Scheme

The NCERT under its National Talent Search (NTS) Scheme awards 750 scholarships including 70 scholarships for Scheduled Castes/Scheduled Tribes candidates each year. The purpose of this scheme is to identify brilliant students at the end of class X and give

them financial assistance towards getting good education so that their talent may develop further and they may serve the discipline of their choice as well as the nation. The selection for the award under the National Talent Search Scheme is done at two stages. The first-stage selection was done by the States/Union Territories through written examination between October 1992 and January 1993 on the basis of which the stipulated number of candidates were recommended to the NCERT for the second-level test. The second-level examination was held at 32 centres by the NCERT on 9 May 1993 to select the requisite number of awardees.

The details of the number of NTS scholarships awarded by the NCERT during 1993 are given in Table

TABLE
Number of NTS Scholarships Awarded during 1993

S No	Name of States/UTs	Quota Allotted	No of Students who Appeared in Second Level Test	No of Scholarships Awarded (General)	Reserve Scholarships Awarded to SC/STs
1	Andhra Pradesh	195	191	20	3
2	Arunachal Pradesh	25	22	-	1
3	Assam	85	80	7	3
4	Bihar	175	166	37	2
5	Goa	25	25	1	1
6	Gujarat	170	141	6	-
7	Haryana	65	65	12	2
8	Himachal Pradesh	45	43	3	1
9	Jammu & Kashmir	25	18	-	-
10	Karnataka	170	170	66	10
11	Kerala	195	190	36	1
12	Madhya Pradesh	155	147	34	1
13	Maharashtra	375	372	154	17
14	Manipur	25	24	1	1
15	Meghalaya	25	21	-	1
16	Mizoram	25	08	-	-
17	Nagaland	25	23	-	-
18	Orissa	120	114	21	2
19	Punjab	65	61	29	2

1993-94

S No	Name of States/UTs	Quota Allotted	No. of Students who Appeared in Second Level Test	No. of Scholarships Awarded (General)	Reserve Scholarships Awarded to SC/STs
20	Rajasthan	130	12	56	1
21	Sikkim	25	23	-	-
22	Tamil Nadu	245	240	56	7
23	Tripura	25	25	1	1
24	Uttar Pradesh	435	424	65	3
25	West Bengal	255	238	30	5
26	A N Islands	10	9	1	-
27	Chandigarh	10	9	5	-
28	Dadra Nagar Haveli	10	9	-	-
29	Delhi	55	55	40	2
30	Daman & Diu	10	-	-	-
31	Lakshadweep	10	5	-	-
32	Pondicherry	10	10	-	1
		3240	3076	680	70

Total No. of Awardees During 1993-94

Mathematics Talent Search (MTS)

+ 2 Stage

	XII (749)	
	XI (749)	1498
Undergraduate Level		
Basic Science		197
Social Science	B A	69
	B Com	
Engg. B/Tech		1761
Medicine		813
Postgraduate Level		
Basic Science		33
Social Science		6
Engg. M Tech		4
Medicine		134
Management		27
M C A		3
Ph D		2

Total 4547

Expenditure during 1993-94

1	Disbursement of Scholarship	62,58,858.00
2	Conduct of Examination	7,40,000.00
3	Summer Placements	5,15,000.00
		Total Rs. 75,13,858.00

The National Board for Higher Mathematics (NBHM) of the Department of Atomic Energy, Government of India, has been identifying and nurturing mathematical talent through regional and national mathematical Olympiads and subsequently training the Indian team of students for participation in the International Mathematical Olympiads (IMOs). Encouraged by the good results of the Indian team at the IMOs since 1989, the NBHM desired to launch a scheme of Mathematical Talent Search for promotion of excellence in Mathematics. As the NCERT is conducting the National Talent Search (NTS) examinations, and as the necessary infrastructure is available, the NBHM sought the collaboration of the NCERT in implementation of the Mathematical Talent Search (MTS) Scheme.

The MTS is open to all students sponsored by the States to appear in the national-level NTS examination. The question paper for the MTS will be set by the NBHM. The answer books of the MTS examination will be first evaluated by the DLSM and

the top 200-300 answer books will be sent to the NBHM for second and final evaluation. On the basis of merit in the final evaluation, upto 50 candidates (subject to a minimum level of performance) will be selected by the NBHM for the award of MTS scholarships, on the same pattern as the NTS scholarships. The awardees will be provided other academic guidance and facilities by the NBHM as long as they pursue Mathematics as one of their subjects. These awardees have also the option to directly appear in the Indian National Mathematical Olympiad (INMO) conducted by the NBHM to identify the team for participation in the IMO.

During 1993-94 the NCERT agreed to conduct the MTS examination, 1994 on an experimental basis pending formal signing of the Memorandum of Understanding (MOU) by the NCERT and the NBHM. All the concerned agencies in the States and the UTs were informed about the MTS examination. A model question paper for the MTS examination was circulated for the guidance of the students. Arrangements were made during the year 1993-94 for conducting the MTS examination on 8 May 1994.

Jawahar Navodaya Vidyalaya

Realising that the children with talent from all sections of the society should be provided opportunities to receive good quality education, which has so far been available to the elite class of the society, it was decided by the Government of India to set up residential schools, known as Jawahar Navodaya Vidyalayas, one in each District. These schools aim at serving the objective of excellence coupled with equity and at providing opportunities to the talented children to develop their full potential. The students to these schools are admitted in Class VI through a selection test.

The selection of students for admission to Jawahar Navodaya Vidyalayas (JNVs) in the country has been an important task of the NCERT since 1986-87. The Navodaya Vidyalaya Cell (NVC) of the NCERT conducts the Jawahar Navodaya Vidyalaya Selection Tests (JNVSTs) in two phases, in February for the summer-closing schools, and in May for the winter-closing schools. In addition to the above, one or two

examinations are generally conducted every year for the newly opened JNVs.

The major pre-examination activities of the NVC during the year 1993-94 included development, translation and preparation of Art pulls of Test Forms in 18 languages, namely, Assamese, Bengali, English, Garo, Gujarati, Hindi, Kannada, Khasi, Malayalam, Manipuri, Marathi, Tamil, Telugu, Mizo, Oriya, Punjabi, Sindhi (Arabic), Sindhi (Devnagri), and Urdu; computerization of the bio-data of candidates and preparation of computerized attendance sheets, compilation of the language-wise requirements of test booklets and their printing, packing and delivery of the test booklets to the Regional/Camp Offices of the Navodaya Vidyalaya Samiti (NVS) throughout the country, and orientation of the Principals of the JNVs and the District Education Officers of the concerned States and Union Territories.

The post-examination activities of the NVC include receipt of answer booklets of the candidates, batching of the answer booklets, data entry by computer; sample checking of the punched responses, assessment of responses, verification of the particulars of the qualified candidates, allocation of seats, preparation of select lists and wait lists; despatch of the results to the Regional Offices of the Navodaya Vidyalaya Samiti (NVS) and release and despatch of wait-lists.

During the year 1993-94, three Jawahar Navodaya Vidyalaya Selection Tests were conducted. Of the 4,41,524 candidates registered, 4,11,396 actually appeared in the tests. The number of candidates selected for the 322 JNVs in the country was 24,402. In the first phase of the JNVST for the year 1994-95, held on 27 February 1994, around 3.9 lakh candidates appeared. The test was administered in 13 languages.

The Test Battery for the JNVST includes 60 items on Mental Ability and 20 items each on Arithmetic and Language. The Mental Ability Test consists of only non-verbal items. This is done with a view to make the selection procedure as culture-free as possible. All the items in the battery are of the objective type.

The Navodaya Vidyalayas Scheme provides for at least 75% of the seats in each district to be filled by candidates from rural areas and not more than 25% of the seats to be filled by candidates from urban areas. The scheme stipulates reservations of minimum 15% seats for the SCs and 7.5% for the STs subject to a maximum of 50% of the seats for SC/ST combined depending upon the proportion of the SC/ST population of the district. This is over and above the positions attained by SC/ST candidates in the open merit. The scheme also envisages 33% reservation of seats for girls.

A study on the validity and reliability of the JNVST has been undertaken. A detailed design for test and statistical analysis of data at all India level has been worked out and formats of 64 tables for summary of analysis of data of the JNVST have been developed. A Secret Code System (SCS) for allocation of secret codes on the answer booklets of the candidates before sending them for data entry and processing has also been developed.



V

EXAMINATION REFORMS AND TALENT SEARCH

1994-95



EXAMINATION REFORMS AND TALENT SEARCH

1994-95

Examination Reform

The Draft National Framework for Examination and other concerned organizational Reform was circulated to the State Boards of Secondary Education. A feasibility study of grading in Secondary examination was undertaken. Workshops on (i) Technology of Item-Writing and Paper-Setting in Science at Secondary and Senior Secondary Levels and (ii) Training of Paper Setters of Boards were conducted. Sample questions for the Question Bank in Geography for class XII were developed. Training in Test Item writing and Paper-Setting was imparted to educational personnel of Assam, Bihar and Jammu and Kashmir. Reports of the studies (i) Attainment of Primary School Children in various States, (ii) Evaluation Practices in Primary Schools of Delhi, and (iii) Analysis of Physics Syllabus of Senior Secondary Classes of different State Education Boards were brought out.

Training in Test Item writing and paper-Setting was imparted to educational personnel of Assam, Bihar and Jammu and Kashmir.

Talent Search

The NCERT is conducting three talent search programmes viz, (i) National Talent Search (ii) Mathematics Talent Search, and (iii) Jawahar Navodaya Vidyalayas Selection Tests. Under the National Talent Search, (NTS) Scheme, the NCERT awards 750 scholarships including 70 scholarships for Scheduled Castes and Scheduled Tribes candidates each year. The purpose of this scheme is to identify brilliant students at the end of Class X and to give them financial assistance towards getting good education. During 1994-95, after conducting the State level and the National level selection tests, NTS Scholarships were awarded to 680 general category candidates and 70 SC/ST candidates. The total number of awardees getting scholarships from the NCERT under the NTS Scheme at various stages of Education (+2 stage, Under Graduate level, Post Graduate level including Engineering, Medicine, Management and Doctoral degree) were 4495 and the amount of scholarship disbursed was Rs 61,19,120.

The NCERT is collaborating with the National Board of Higher Mathematics (NBHM) of the Department of Atomic

The total number of awardees getting scholarships from the NCERT under the NTS Scheme at various stages of Education were 4495 and the amount of scholarship disbursed was Rs. 61,19,120.



Energy, Government of India for identifying and nurturing Mathematics Talent through regional and National Mathematics Olympiads.

Encouraged by the good results of Indian teams at the IMOs, the BHM has launched a scheme of Mathematics Talent Search (MTS) in collaboration with the NCERT. During 1994-95 the NCERT worked in closed collaboration with the NBHM in conducting the MTS Examination at the national level and extended help for participation of the Indian Team in the IMO held in Turkey.

As per criteria laid down for selection of students for admission in the JNVs, at least 75 per cent of the seats in each District are to be filled by candidates from rural areas and not more than 25 per cent of the seats are to be filled by the candidates from the urban areas.

The NCERT provides technical support to the Navodaya Vidyalaya Samiti (NVS), MHRD to select students for admission to class VI of the Jawahar Navodaya Vidyalayas in the country. During 1994-95, the NCERT conducted three selection tests for the Jawahar Navodaya Vidyalayas. Each selection test paper included 60 items of Mental Ability and 20 items each of Arithmetic and Language.

As per criteria laid down for selection of students for admission in the JNVs, at least 75 per cent of the seats in each District are to be filled by candidates from rural areas and not more than 25 per cent of the seats are to be filled by the candidates from the urban areas. The scheme envisages reservation of minimum 15 per cent seats for the SCs and 7.5 per cent seat for STs subject to a maximum of 50 per cent of the seats for SCs and STs combined depending upon the proportion of the SCs and STs population of the Districts. The scheme also stipulates 33 per cent reservation of seats for female candidates.



Table

Workshops/Meetings/Seminars/Conferences/Training/Orientation Programmes, organised by DMES&DP during 1994-95

<i>S. No</i>	<i>Title of the Programme</i>	<i>Dates</i>	<i>Venue</i>	<i>No. of Participants</i>
1	Development of Question Bank in Geography for Class XII based on NCERT Syllabi	18 to 24 October 1994	NCERT New Delhi	15
2	Training of Key Personnel in Educational Evaluation of Jammu and Kashmir State Board of School Education	5 to 9 December 1994	NCERT New Delhi	57
3	Training Programme on Technology of Item-Writing and Paper Setting in Science (Physics, Chemistry, Biology and Zoology) at Secondary and Senior Secondary Levels	9 to 13 January 1995	NCERT New Delhi	13
4	Assessing Feasibility of NCERT Guidelines of Scaling and Grading to Board's Annual Examination Results			
4 1	First Programme	21 February 1995	CBSE Preet Vihar Delhi	2
4 2	Second Programme	20 to 22 March 1995	CBSE Preet Vihar Delhi	1
5	Vetting Workshop for the development of a Brochure entitled "Technology of developing Unit Tests, improving Teaching and Learning"	7 to 10 March 1995	NCERT New Delhi	6
6	Development of Question Bank in Geography for Class XII based on NCERT Syllabi	27 to 31 March 1995	Chandigarh	15
7	Second Meeting of the Advisory Committee for Sixth All India Educational Survey	4 to 5 November, 1994	NCERT New Delhi	20
8	Development of Management Information System in the context of Sixth All India Educational Survey	16 to 18 February 1995	NIC, CGO Complex Lodhi Road New Delhi	42



VI

EXAMINATION REFORMS AND TALENT SEARCH 1995-96

EXAMINATION REFORMS AND TALENT SEARCH

1995-96

Examination Reforms

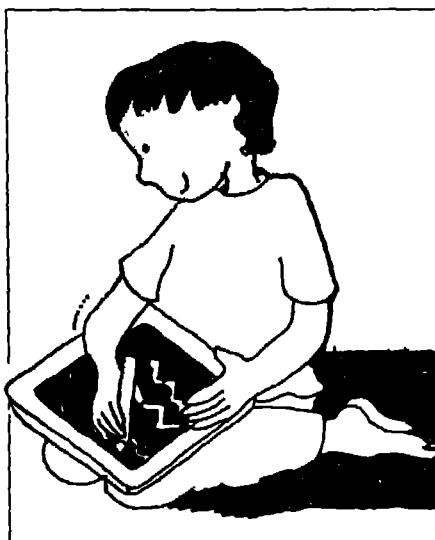
The NCERT is engaged in several activities related to measurement and evaluation in the area of examination reforms. The programmes in this area are specially directed towards designing, developing and standardising scientific processes, tools and techniques for assessment of cognitive, affective and conative aspects of pupils' growth, promoting and conducting research in educational testing and evaluation and measurement and training of key resource personnel, providing advisory services and coordination and clearing-house functions in the area of examination reforms

A national meeting of the chairpersons and secretaries of selected State Boards of School/Secondary Education was organised to discuss the draft National Framework of Examination Reforms, and Minimum Physical Facilities in Schools. In order to find out the practicability of the scheme of Continuous Comprehensive Evaluation (CCE) in schools, try-out of the scheme was undertaken in two schools in Delhi. Qualitative analysis of pupils' errors in Boards' Examination of Class X (biology, physics and chemistry) and its impact on pupils' achievement was undertaken in collaboration with the Central Board of Secondary Education. A study on 'analysis of question papers of Class X in social studies (history, geography, civics, economics)' of the Boards of Secondary Education of Haryana, CBSE, Jammu and Kashmir and Rajasthan was also conducted. The question papers of previous years were analysed.

The faculty's expertise was provided to the Council of Higher Secondary Education, Manipur in training of key personnel in educational evaluation. Other consultancy programmes include (i) orientation of English teachers of ICSE, (ii) review meeting of senior secondary curriculum in English at the National Open School, (iii) Orientation of science teachers organised by SCERT, Delhi, (iv) development of sample papers in physics, biology, chemistry by CBSE and (v) recasting of physics syllabus of the National Open School.

Reports and Other Materials Brought out during 1995-96

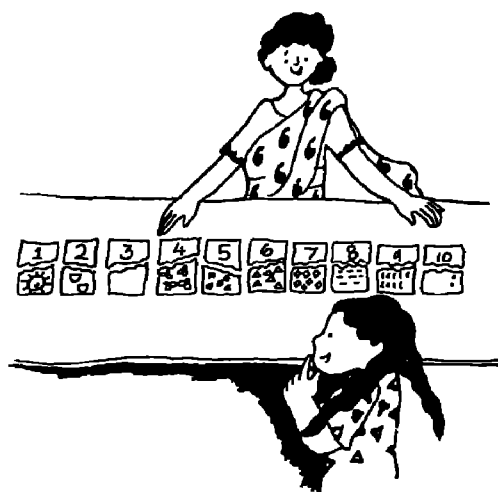
- Evaluation Practices in Primary Schools in Delhi (mimeographed)
- Qualitative Analysis of Pupils' Errors made in Boards Examination of Class XII Biology and its Impact on Pupils' Achievement (mimeographed)
- Qualitative Analysis of Pupils' Errors made in Boards Examination of Class XII Physics and its Impact on Pupils' Achievement (mimeographed)
- Qualitative Analysis of Pupils' Errors made in Boards' Examination of Class XII Chemistry and its Impact on Pupils' Achievement (mimeographed)
- Sample Questions on India - General Geography (NCERT Textbook for Class XII) (mimeographed)
- Qualitative Analysis of Question papers in Social Studies of Class X for Four Boards of School Education (mimeographed)



- ❑ Role of Induction Programme in Teacher Effectiveness in Improving Quality of School Education (typed)
- ❑ Role of Three Ts in Quality in School Education —Texts, Tests and Teachers'

Education and Training (typed)

- ❑ Concept and Role of Educational Measurement, Evaluation and Tests (typed)
- ❑ Evaluation Materials—Guidelines (typed)



Identification and Nurturance of Talent

Navodaya Vidyalayas

National Talent Search Scheme

In the area of talent search, the NCERT is conducting the following major programmes:

- ☐ National Talent Search
- ☐ Technical Support to Jawahar

The NCERT under its National Talent Search (NTS) scheme awards 750 scholarships including 70 scholarships for SC/ST candidates each year

The purpose of this scheme is to identify brilliant students at the end of Class X and give them financial assistance towards getting good education so that their talent may

develop further and they may serve the discipline of their choice as well as the country. During 1995-96, the candidates were required to appear in all the eight subjects at the Class X level instead of any four subjects as was the case in previous years

The selection for the award under the NTS is done at two stages. The first stage selection was done by the states/UTs through written examinations between October 1994 and January 1995. The stipulated number of candidates were recommended for the second level test which was held on 14 May 1995 at 32 centres all over India. The details of number of scholarships awarded by the NCERT during 1995-96 are given below

Number of NTS Scholarships Awarded during 1995-96

S No.	States/UTs	Quota Allotted	Number of Students Appeared in second Level Test	Number of Scholarships Awarded (General)	Scholarships Awarded to SC/ST
1	Andhra Pradesh	195	181	30	3
2	Arunachal Pradesh	25	23	-	-
3	Assam	90	88	4	2
4	Bihar	215	211	75	6
5	Goa	25	22	1	-
6	Gujarat	165	114	3	-
7	Haryana	70	69	11	1
8	Himachal Pradesh	35	33	9	-
9	Jammu and Kashmir	25	16	2	-
10	Karnataka	170	169	57	3
11	Kerala	190	186	41	6
12	Madhya Pradesh	130	124	16	7
13	Maharashtra	365	365	132	11
14	Manipur	25	24	-	2
15	Meghalaya	25	25	1	3
16	Mizoram	25	21	-	-
17	Nagaland	25	22	-	-
18	Orissa	155	154	30	6
19	Punjab	100	99	32	-

Number of NTS Scholarships Awarded during 1995-96 (contd)

20	Rajasthan	95	92	46	3
21	Sikkim	25	14	-	-
22	Tamil Nadu	245	242	54	3
23	Tripura	25	22	1	1
24.	Uttar Pradesh	430	242	61	4
25	West Bengal	265	249	34	7
26	A N Islands	10	10	-	-
27	Chandigarh	10	10	7	-
28	D & N Haveli	10	4	-	-
29	Delhi	50	50	33	1
30	Daman & Diu	10	3	-	-
31	Lakshadweep	-	-	-	-
32	Pondicherry	10	10	-	1
		3250	3051	680	70

Total Number of NTS Awardees during 1995-96

+2 Stage	Class XI 750 } Class XII 749 }	1499
Under Graduate Level		
Basic Science		191
Social Science		84
Engg /B Tech		1669
Medicine		795
Post-Graduate Level		
Basic Science		20
Social Science		3
Engg /B Tech		3
Medicine		49
Management		24
Ph D		5
Total		4342
Expenditure		
1	Disbursement of Scholarships	Rs 92 11 905 00
2	Conduct of NTS Examination	Rs 7,16 061 00
Total		Rs 99,27,966 00

JNVs Selection Tests

The NCERT continued carrying out the task of selection of students for admission to Class VI of the Jawahar Navodaya Vidyalayas (JNVs). The JNVs have been established to (i) serve the objective of excellence coupled with equity, (ii) promote national integration, (iii) provide opportunities to the talented children to develop their full potential, and (iv) facilitate the process of school improvement

The basis of admission in Jawahar Navodaya Vidyalayas is a selection test designed and evolved by the NCERT. The medium of the test is mother tongue or regional language. The Jawahar Navodaya Vidyalaya Selection Test (JNVST) to a large extent is of non-verbal, class-neutral designed to ensure that brilliant children from rural schools are able to compete without any disadvantage. The JNVST has three sections: (i) Mental Ability Test — 60 questions, Arithmetic Test — 20 questions, and Language Test — 20 questions. All the questions are objective type questions.

The tests were prepared and finalised in English and translated into 18 languages (Assamese, Bengali, Bodo, Garo, Gujarati, Hindi, Kannada, Khasi, Malayalam, Manipuri, Marathi, Mizo, Oriya, Punjabi, Sindhi, Tamil, Telugu and Urdu).

There is a provision for reservation of at least 15 per cent seats for SCs, 7.5 per cent seats for STs and 33 per cent seats for girls. At least 75 per cent of the seats are filled from the schools located in rural areas and remaining from the urban areas. For selecting the candidates for admission in the session 1996-97, a selection test was also conducted in February 1996. For this test, 4,07,569 candidates were registered. Of these, 3,75,770 appeared in the examination.

During 1995-96, the JNVST was conducted in May and September 1995, and in February 1996. The total number of candidates registered for the session 1995-96 was 4,51,429. Of these, 4,12,485 appeared in the examination. The number of candidates selected for the JNVs spread across the country was 25,775. Of these, 8,873 were girls. The number of selected candidates for rural and urban areas was 19,710 and 6,065 respectively. The categorywise number of the selected candidates was as under:

<input type="checkbox"/> General Category	10,599
<input type="checkbox"/> Other Backward Classes	5,484
<input type="checkbox"/> Scheduled Castes	5,825
<input type="checkbox"/> Scheduled Tribes	3,967

Workshops/Meetings/Seminars/Conferences/Exhibiting/Orientation Programmes Organised by DCNE during 1995-96

S.No.	Title of the Programme	Dates	Venue	No. of Participants
1	2	3	4	5
1.	Meeting of Chairmen and Secretaries of Boards of School Education.	7 April 1995	NCERT New Delhi	4
2.	Try-out of Comprehensive and Continuous Evaluation in Schools.	3 to 4 August 1995	NCERT New Delhi	9
3.	Qualitative Analysis of pupils' Errors made in Board Examination of Class XII (Biology), and its Impact on Pupils Achievement.	20 to 24 November 1995	NCERT New Delhi	9
4.	Qualitative Analysis of Pupils' Errors made in Board Examination of Class XII (Physics) and its Impact on Pupils Achievement.			
5.	Qualitative Analysis of Pupils' Errors made in Board Examination of Class XII (Chemistry) and its Impact on Pupils Achievement.	20 to 24 November 1995	NCERT New Delhi	9
6.	Qualitative Analysis of Question-Papers in Social Studies for Class X of four Boards of School Education.	11 to 15 March, 1996	NCERT New Delhi	12

VII

EXAMINATION REFORMS AND TALENT SEARCH

1996-97

EXAMINATION REFORMS AND TALENT SEARCH

1996-97

EXAMINATION REFORMS

The NCERT is engaged in several activities related to measurement and evaluation in the area of examination reforms. The programmes in this area are specially directed towards designing, developing and standardising scientific processes, tools and techniques for assessment of cognitive, affective and conative aspects of pupils' growth, promoting and conducting research in educational testing and evaluation and measurement and training of key resource personnel; providing advisory services and coordination and clearing-house functions in the area of examination reforms.

Qualitative Analysis of Pupils' Errors in Boards' Examinations of Class XII Biology, Physics and Chemistry

After making random selection of a sample of answer books of CBSE Class XII examination in the subjects of Biology, Physics and Chemistry representing all types of schools, a workshop was organised in which teachers and evaluation experts identified and recorded the shortcomings along with their frequency of occurrence. A summary of shortcomings was prepared and possible reasons for such shortcomings and suggested ways and means to prevent such shortcomings were mentioned. Subject-wise reports of qualitative analysis of pupils' errors in Biology, Physics and Chemistry were prepared and disseminated to the Boards of School Education to prompt them to take up such studies.

Try-out of the Scheme of Continuous and Comprehensive Evaluation in Schools

A programme of try-out of the scheme of Continuous and Comprehensive Evaluation (CCE) was undertaken to find out its viability and feasibility in school situation. The sample included 25 schools of various types in rural and urban areas of Delhi. The data were collected through, (i) Interview schedule, (ii) Evaluation practices questionnaire, (iii) Question papers of Class III, and (iv) Report cards

After analysing the data, the try-out report was prepared.

Training of Key Personnel in Educational Evaluation

An orientation course for Paper Setters of the Meghalaya Board of School Education was organised. Participants from the Meghalaya Board were trained in Educational Evaluation. Evaluation workshops were organised for the Madhyamic Shiksha Mandal, Madhya Pradesh and the Board of School Education, Meghalaya.

Regional Level Inputs to Examination Reforms

The RIE, Bhopal undertook (i) Analysis of answer scripts of Science at secondary level of the Madhya Pradesh Board for identification of common errors, and (ii) Analysis of answer scripts of Social Studies of the Madhya Pradesh Board at secondary level for identification of common errors.

The RIE, Bhubaneswar analysed common errors in Mathematics committed by students in Class IX Board examination by analysing 500 answer scripts of the last year's examination. The common errors committed by pupils in Physics, Chemistry, Biology and Mathematics at plus-two examination conducted by CHSE, Orissa were identified, mapped and categorised by analysing about 500 answer scripts of candidates who appeared in Board's examinations in each of the subject areas. Based on the findings, drafting of remedial materials was planned. A seven-day workshop for the paper setters of the Board of Secondary Education, Orissa was conducted by the RIE, Bhubaneswar (i) to orient them on objective-based tests and objective tests, (ii) to make them aware about criterion-referenced testing and norm-referenced testing, (iii) building their capacities in designing diagnostic tests and achievement tests, (iv) informing them how to give weightages to the different dimensions to be reflected in a question paper, (v) giving them a hand-on practice on how to design a good question paper, and (vi) helping them to prepare a set of exemplar question papers.

The RIE, Mysore undertook research studies to identify the common errors made by pre-university students of Karnataka in

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Mathematics, Chemistry, Physics and Biology.
The reports of these studies were prepared

Examination Reform Bulletin

The first issue of the *Examination Reform Bulletin* was brought out and sent to about 80 organisations concerned with school education. Among other things, the developments in examination reform taking place in other organisations have been highlighted in the bulletin.

Handbook of Continuous and Comprehensive Evaluation

The draft manuscript was prepared, critically examined and finalised in a vetting workshop.

The handbook is being edited for circulation.

Reports and Other Materials Brought Out during 1996-97

1. Development of Training Package in Educational Evaluation (mimeographed)
2. Qualitative Analysis of Question Papers of Class X in Social Studies of Four Boards of School Education (1995) (mimeographed)
3. Try-out of the Scheme of Continuous and Comprehensive Evaluation at Schools (mimeographed)
4. Coordination, Documentation and Dissemination of Research in Examination Reform at School Level (mimeographed)



IDENTIFICATION AND NURTURANCE OF TALENT

In the area of talent search, the NCERT is conducting two major programmes (i) National Talent Search, and (ii) Technical Support to Jawahar Navodaya Vidyalayas

National Talent Search Scheme

The NCERT, under its National Talent Search (NTS) scheme, awards 750 scholarships including 70 scholarships for SC/ST candidates each year. The purpose of this scheme is to identify brilliant students at the end of Class

X and give them financial assistance towards getting good education so that their talent may develop further and they may serve the discipline of their choice as well as the nation.

The selection for the award under the NTS scheme is done in two stages. The first stage selection is done by the states and UTs through written examination conducted usually between October and December. On the basis of this examination, a stipulated number of candidates are recommended to the NCERT for the second level test. The second stage selection involves both written examination and an interview for the selection of the requisite number of awardees. The NCERT not only awards scholarships to these selected candidates, but also organises suitable summer institutes to nurture candidates' talents with the help and cooperation of leading institutions of the country.

Number of NTS Scholarships Awarded during 1996-97

S. No	States/UTs	Quota Allotted	No. of Students Appeared in Second-Level Test	No. of Scholarships Awarded (General)	Scholarships Awarded (SC/ST)
1	Andhra Pradesh	195	173	30	05
2	Arunachal Pradesh	25	21	-	02
3	Assam	90	90	04	02
4	Bihar	215	209	76	05
5	Delhi	50	50	27	01
6	Goa	25	23	03	-
7	Gujarat	165	131	02	-
8	Haryana	70	70	12	01
9	Himachal Pradesh	35	34	04	02
10	Jammu and Kashmir	25	25	02	-
11	Karnataka	170	166	35	07
12	Kerala	190	189	44	04
13	Madhya Pradesh	130	121	26	03
14	Maharashtra	365	362	162	22
15	Manipur	25	25	-	-
16	Meghalaya	25	24	-	01
17	Mizoram	25	09	-	-
18	Nagaland	25	21	-	-
19	Orissa	155	151	27	03
20	Punjab	100	99	26	01
21	Rajasthan	95	92	44	03
22	Sikkim	25	19	-	-
23	Tamil Nadu	245	238	44	-
24	Tripura	25	22	01	-
25	Uttar Pradesh	430	414	80	01
26	West Bengal	265	248	25	07
27	A&N Islands	10	09	-	-
28	Chandigarh	10	09	06	-
29	Dadar & Nagar Haveli	10	02	-	-
30	Daman & Diu	10	-	-	-
31	Lakshadweep	10	-	-	-
32	Pondicherry	10	10	-	-
		3250	3055	680	70

Total No. of NTS during 1996 = 750

Total Number of Awardees Getting Scholarship during 1996-97

+2 Stage	Class XI 750 Class XII 750	1500
Under-Graduate Level		
Basic Science		121
Social Science		93
Engg /B.Tech		1581
Medicine		836
Post-Graduate Level		
Basic Science		11
Social Science		6
Engg /M Tech		2
Medicine		62
Management		44
Ph D		4
Total		4260
Expenditure during 1996 97		
1	Disbursement of Scholarship	95 99 650 00
2	Conduct of NTS Examination	7,19,643 00
3	Summer School/Attachment Programme	14 439 00
Total		Rs 1,03,33,732 00

Jawahar Navodaya Vidyalayas Selection Test

The NCERT continued carrying out the task of selection of students for admission to Class VI of the Jawahar Navodaya Vidyalayas (JNVs). The JNVs have been established to (i) serve the objective of excellence coupled with equity (ii) promote national integration, (iii) provide opportunities to the talented children to develop their full potential, and (iv) facilitate the process of school improvement. The basis of admission in Jawahar Navodaya Vidyalayas is a selection test designed and evolved by the NCERT. The medium of the test is the mother tongue or the regional languages.

The selection test has three sections: (i) Mental Ability Test—60 questions, (ii) Arithmetic Test—20 questions, and (iii) Language Test—20 questions. All the questions are multiple-choice type questions, each having four options. The tests are prepared and finalised in English and translated into 17 languages (Assamese, Bengali, Bodo, Garo, Gujarati, Hindi, Kannada, Khasi, Malayalam, Manipuri, Marathi, Mizo, Oriya, Punjabi, Tamil, Telugu and Urdu).

There is a provision for reservation of at least 15 per cent seats for SCs and 7.5 per cent seats for STs. In order to encourage education of girls, at least one-third of the total

selected candidates should be girls. At least 75 per cent of the seats are filled from schools located in rural areas and remaining from the urban areas.

During the year 1996-97, the first JNVs test was conducted on 8 June 1996 in the States of Meghalaya, Mizoram, Nagaland, Jammu and Kashmir, Arunachal Pradesh, Himachal Pradesh, Uttar Pradesh and Bihar. A total number of 23,752 candidates were registered out of which 18,629 candidates appeared for the test at various centres. The number of candidates selected for the JNVs was 1,993, of these 725 were girls. The number of selected candidates for rural and urban areas was 1,633 and 360, respectively.

The second JNVs test during the year 1996-97 was conducted on 23 February 1997 in the States of Andhra Pradesh, Assam, Bihar, Goa, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Orissa, Sikkim, Punjab, Rajasthan, Tripura, Uttar Pradesh, Arunachal Pradesh, Jammu and Kashmir and UTs of Andaman and Nicobar Islands, Chandigarh, Dadra and Nagar Haveli, Daman and Diu, Lakshadweep and Pondicherry. A total number of 3,69,568 candidates were registered of which 3,41,632 candidates appeared for this test at various centres.

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The number of candidates selected for the JNVs spread across the country was 22,455, of these 7,758 were girls. The number of selected candidates for rural and urban areas

was 17,147 and 5,308, respectively.

The category-wise number of candidates for both the examinations was as under (see Box).

Category	No. of Selected Candidates	
	June 1996	February 1997
General Category	751	8,388
Other Backward Classes	137	5,382
Scheduled Castes	241	5,486
Scheduled Tribes	864	3,199
Total	1,993	22,445

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Department of Education in Measurement and Evaluation (DEME)

S.No.	Title of the Programme	Dates	Venue	No. of Participants
1	2	3	4	5
1.	Training of Key Personnel in Educational Evaluation in States and Union Territories".			
1.1	M.P. Board of Secondary Education.			
	First Programme .	8 to 13 July 1996	Indore	50
	Second Programme	22 to 27 July 1996	Gwalior	60
	Third Programme	19 to 24 August 1996	Rewa	50
	Fourth Programme	9 to 14 August 1996	Raipur	50
1.2	Meghalaya Board of Secondary Education.	16 to 21 September 1996	Tura	60
1.3	Orissa Board of Secondary Education	4 to 7 February 1996	Cuttack	30
2.	"A Handbook on Continuous and Comprehensive Evaluation".	25 to 27 February 1996	NCERT New Delhi	20

VIII

EXAMINATION REFORMS AND TALENT SEARCH 1997-98

EXAMINATION REFORMS AND TALENT SEARCH

1997-98

THE NCERT is engaged in several activities related to measurement and evaluation in the area of examination reforms. The programmes in this area are specially directed towards designing, developing and standardising scientific processes, tools and techniques for assessment of cognitive, affective and conative aspects of pupils' growth, promoting and conducting research in educational testing and evaluation and measurement and training of key resource personnel, providing advisory services and coordination and clearing house functions in the area of examination reforms.

Development

Pool of Questions in Environmental Studies (Science and Social Sciences) for Class III

In order to strengthen and improve the evaluation process and to overcome the specific difficulties of teachers in framing good quality questions, the NCERT developed, refined and finalised pools of questions in Environmental Studies (Science) and Environmental Studies (Social Sciences) for Class III.

Reading Comprehension Exercises for Classes IV and V in English

In order to improve the ability of reading comprehension, 65 passages of different varieties as exercises for reading comprehension were developed for teaching English in Classes IV and V in schools. These exercises were vetted in the workshop situation to make them print-worthy. Two volumes of a book titled 'Let Us Read and Understand', containing 25 exercises each, have been developed.

Training

Training of Key Personnel in Educational Evaluation

The Paper Setters of the National Open School, New Delhi were trained in educational evaluation in (i) Science and Mathematics subjects and (ii) Social Sciences and Commerce subjects at the Secondary and Senior Secondary stages. About 50 participants participated in each programme.

An orientation programme in item writing and paper setting was organised for the resource persons and perspective paper



setters of the Manipur Board of Secondary Education.

Evaluation

Analysis of Question Papers

Consultancy services were provided to the Haryana Board of Secondary Education in analysing the question papers of the Board for the year 1996-97 at secondary stage

Regional Level Inputs to Examination Reforms

The RIE, Ajmer developed (i) diagnostic tests on some selected units of Physics at the Senior Secondary level, and (ii) a training package for DIETs faculty on Continuous and Comprehensive Evaluation

The RIE, Bhopal analysed common errors of Social Sciences question papers and answer scripts of students of the Madhya Pradesh Board of Secondary Education. Diagnostic tests were developed in some of the units of Commerce at +2 level. Two training programmes in paper

setting techniques for +2 stage teachers of Maharashtra in Science and Social Sciences (Geography) were also organised.

The RIE, Bhubaneswar is developing Standardised Language Competency Tests in Hindi and Oriya. Diagnostic Tests in Language and Mathematics for primary classes under DPEP have been developed and reviewed.

The NERIE, Shillong conducted a 5-day workshop-cum-orientation programme for teacher educators/school teachers and other officials of Meghalaya in Continuous Comprehensive Evaluation

Reports and Other Materials Brought Out during 1997-98

- 1 Examination Reform Bulletin (typed)
- 2 *Prashn Kosh-Paryavaran Adhyayan* (Samajik Adhyayan) Class III (typed)
- 3 Let Us Read and Understand for Class IV (typed manuscript ready for printing)
4. Let Us Read and Understand for Class V (typed manuscript ready for printing)



In the area of talent search, the NCERT is conducting two major programmes: (i) National Talent Search, and (ii) Technical Support to Jawahar Navodaya Vidyalayas

National Talent Search Scheme

The NCERT, under its National Talent Search (NTS) Scheme, awards 750 scholarships including 70 scholarships for SC/ST candidates each year. The purpose of this scheme is to identify brilliant students at the end of Class X and give them financial assistance towards getting good education so that their talent may develop further and they may serve the discipline of their choice as well as the nation

The selection for the award under the NTS scheme is done in two stages. The first stage selection is done by the States and UTs through written examination conducted usually between October and December. On the basis of this examination, a stipulated number of candidates are recommended to the NCERT for the second level test. The second stage selection involves both written examination and an interview for the selection of the requisite number of awardees. The NCERT not only awards scholarships to these selected candidates but also organises suitable summer institutes to nurture candidates' talents with the help and cooperation of leading institutions of the country.

Number of NTS Scholarships Awarded during 1997-98

S No	States/UTs	Quota Allotted	No of Students Appeared in Second-Level Test	No of Scholarships Awarded (General)	No of Scholarship Awarded (SC/ST)
1	Andhra Pradesh	195	191	31	05
2.	Arunachal Pradesh	25	23	—	—
3.	Assam	90	85	10	01
4	Bihar	215	206	55	06
5	Delhi	50	49	36	—
6	Goa	25	25	09	—
7	Gujarat	165	127	02	—
8.	Haryana	70	69	27	01
9.	Himachal Pradesh	35	34	05	02



S.No.	States/UTs	Quota Allotted	No. of Students Appeared in Second-Level Test	No. of Scholarships Awarded (General)	No. of Scholarships Awarded (SC/ST)
10.	Jammu and Kashmir	25	25	—	—
11.	Karnataka	170	166	43	02
12.	Kerala	190	188	39	02
13.	Madhya Pradesh	130	125	29	09
14.	Maharashtra	365	364	131	11
15.	Manipur	25	24	01	—
16.	Meghalaya	25	24	—	01
17.	Mizoram	25	08	—	—
18.	Nagaland	25	25	—	02
19.	Orissa	155	152	23	01
20.	Punjab	100	98	24	03
21.	Rajasthan	95	94	46	02
22.	Sikkim	25	24	—	—
23.	Tamil Nadu	245	242	47	06
24.	Tripura	25	11	02	01
25.	Uttar Pradesh	430	415	67	02
26.	West Bengal	265	255	43	13
27.	A & N Islands	10	08	01	—
28.	Chandigarh	10	10	09	—
29.	Dadar & Nagar Haveli	10	06	—	—
30.	Daman & Diu	10	—	—	—
31.	Lakshadweep	10	08	—	—
32.	Pondicherry	10	10	—	—
Total		3250	3091	680	70

Total Number of Awardees Getting Scholarships during 1997-98

+2 Stage	Class XI 750	1500
	Class XII 750	

Under-Graduate Level

Basic Science	176
Social Science	80
Engg./B.Tech	1732
Medicine	668

Post-Graduate Level

Basic Science	10
Social Science	11
Engg /M.Tech	4
Medicine	34
Management	58
Ph D	5

Total : 4278

Expenditure during 1997-98

1 Disbursement of Scholarships	80,80 787
2 Conduct of NTS Examination	7,74 064

Total : Rs 88,54,851

Jawahar Navodaya Vidyalayas (JNVs) Selection Test

The NCERT continued carrying out the task of selection of students for admission to Class VI of Jawahar Navodaya Vidyalayas (JNVs). The JNVs have been established to act as pace-setters for other schools in the districts and to provide quality education to bright students with the twin objectives of equity and excellence. More specifically, the scheme aims at encouraging and nurturing talent predominantly from rural and weaker sections besides promoting national integration amongst students. At present there are 383 JNVs spread all over the country.

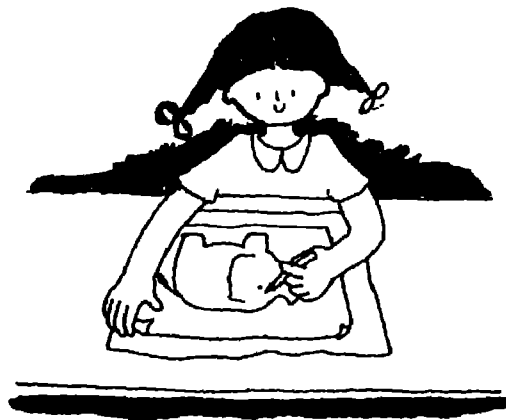
The admission in JNVs are made on the basis of a selection test designed and evolved by the NCERT. The medium of this examination is the medium offered by candidates while studying in Class V. The tests are prepared and finalised in English and translated in regional languages. The selection test comprises of three sections, viz. Mental Ability Test—60 questions, Arithmetic Test—20 questions, and Language Test—20 questions.

At least 75% of the seats are filled from schools located in rural areas and remaining seats are filled from the urban areas. In order to encourage education of

girls, one third of total seats in a district are offered to female candidates of that district, if found eligible. There is a provision for reservation of at least 15 percent seats for SCs and 7.5 per cent seats for STs.

During the year 1997-98, only one selection test was conducted by the NCERT on 26 April 1997. The States covered for this test were Arunachal Pradesh, Assam, Bihar, Haryana, Himachal Pradesh, Jammu and Kashmir, Meghalaya, Mizoram, Nagaland, Rajasthan, Sikkim, Tripura, Uttar Pradesh and Delhi. A total number of 26389 candidates took this examination from all over the states; maximum number of candidates (8794) appeared from the Bihar state and the minimum number of candidates (178) appeared from Arunachal Pradesh. The number of boys was much higher (72.14 per cent compared to girl per cent (27.86). The participation of SC/ST category candidates was only 25.74 per cent despite reservation facility. However, the number of rural candidates appeared was very high, 22998 candidates out of 26389 candidates that appeared in the JNVST.

The work pertaining to preparation of the selection tests and processing of results was transferred to the Central Board of Secondary Education (CBSE), New Delhi after the conduct of JNVST in April 1997.



Department of Education in Measurement and Evaluation (DEME)

S.No.	Title of the Programme	Dates	Venue	No. of Participants
1	2	3	4	5
1.	Development of a Pool of Questions in Environmental Studies in Science for Class-III	20 to 24 October 1997	NCERT New Delhi	11
2.	Development of a Pool of Questions on Environmental Studies (Social Studies) for Class-III	13 to 17 October 1997	NCERT New Delhi	12
3.	Development of Reading Comprehension on Exercises for Classes IV & V in English.	3 to 7 November 1997	NCERT New Delhi	15
4.	Departmental Advisory Board Meeting.	13 January 1998	NCERT New Delhi	11
5.	Vetting Workshop on Development by a Pool of Questions on Environmental Studies (Social Studies) for Class-III	23 to 27 February 1998	NCERT New Delhi	4
6.	Vetting Workshop on Development of Reading Comprehension Exercises for Classes IV & V.	23 to 27 February 1998	NCERT New Delhi	7
7.	Training in Educational Evaluation to National Open School Paper-Setters (Science & Mathematics).	28 to 31 July, 1997	National Open School, Kailash Colony, New Delhi	50
8.	Training in Educational Evaluation to National Open School Paper-Setters (Social-Sciences)	6 to 9 October 1997	-do-	50
9.	Evaluation workshop for the Board of Secondary Education, Manipur.	21 to 26 September 1997	Imphal	150
10.	Analysis of Question Papers of Board of Secondary Education, Maryana.	3 to 4 October 1997	Gurgaon	60

IX

EXAMINATION REFORMS AND TALENT SEARCH 1998-99

EXAMINATION REFORMS AND TALENT SEARCH



THE NCERT is engaged in several activities related to measurement and evaluation in the area of Examination Reforms. The programmes in this area are specially directed towards designing, developing and standardising scientific processes, tools and techniques for assessment of cognitive, affective and cognitive aspects of pupils' growth : promoting and conducting research in educational testing and evaluation and measurement and training of key resource personnel, providing advisory services and coordination and clearing-house functions in the area of educational evaluation

Development

Critical Analysis of Question Papers of Boards at +2 Stage in Six Subjects

In order to identify the strengths and weaknesses in terms of their behaviour and content components, language, matching with the syllabus, appropriateness of marks, time and instructions to the examinees, print and size of the paper, etc , the NCERT analysed the question papers of Maharashtra, Tamil Nadu, Tripura and Himachal Pradesh Boards in English, Mathematics, Physics, Chemistry, Biology and Political Science at the +2 stage. Thirty-two participants from schools and Boards contributed in the analysis of papers which was aimed at improving their quality to make them an ideal instrument of testing.

Analysis of Evaluation Practices in Chemistry Practicals at Senior Secondary Stage in Various Education Boards of the Country

Keeping in view the latest thinking of the objectives of Chemistry laboratory work, an analysis of prevalent evaluation practices in Chemistry practicals across the country has

1998-99

been made. The weaknesses in evaluation practices in terms of ambiguity, inconsistency or contradictions have been found. Then on the assessment of Chemistry laboratory work has to be more on the process part rather than the product part. The laboratory work should ultimately result in the development of skills and they should properly and adequately evaluated. The whole exercise should start a fresh thrust among the various Boards of Senior Secondary Education regarding the Chemistry practical evaluation. A workshop was organised at Maharashtra Second Board of Education, Pune from 22 to 26 February 1999. Twenty persons participated in this programme.

Training

Training of Key Personnel in Educational Evaluation

The paper-setters/examiners of Haryana Board of School Education, Bhiwani were trained in Educational Evaluation in Hindi, Science, Mathematics and Social Sciences in July 1998 at Gurgaon, Haryana.

An orientation programme in setting question papers and evaluation for teachers of Science and Mathematics of Mizoram Board of School Education was conducted at Aizawl from 21 to 25 September 1998. Apart from delivering lectures in Educational Evaluation Measurement, teachers were oriented in framing good questions. The participants framed about 700 items in various subjects and prepared two balance papers each in Physics, Chemistry and Mathematics.

The paper-setters of the Punjab Board of School Education were oriented in deve-

balanced question papers in different subjects during January 1999 at Chandigarh. Forty participants attended the training.

An orientation programme was organised at Guwahati in October 1998 to train the paper-setters of the Assam Board of Secondary Education in different subjects. Seventy-five participants from schools, colleges and universities attended the programme.

Reports and Other Material Brought Out during 1998-99

1. Examination Reform Bulletin (Xeroxed)

2. Analysis of Evaluation Practices in Chemistry Practicals at the Senior Secondary Stage in Various Education Boards of the Country—Report (Cyclostyled)
3. Critical Analysis of Question Papers of Boards at +2 Stage in Six Subjects — Report (Cyclostyled)
4. A Pilot Study to Find Out the Reasons for Non-implementation of CCE in Schools at Elementary Level (Xeroxed).



National Talent Search Scheme

THE NCERT, under its National Talent Search (NTS) scheme, awards 750 scholarships including 70 scholarships for SC/ST candidates each year. The purpose of this scheme is to identify brilliant students at the end of Class X and give them financial assistance towards getting good education so that their talent may develop further and they may serve the discipline of their choice as well as the nation. The selection for the award under the NTS scheme is done in two stages. The first stage selection is done by the states and UTs

through written examination conducted usually between October and December. On the basis of this examination, a stipulated number of candidates are recommended to the NCERT for the second level test. The second stage selection involves both written examination and an interview for the selection of the requisite number of awardees. The NCERT not only awards scholarships to these selected candidates but also organises suitable summer institutes to nurture candidates' talent with the help and cooperation of leading institutions of the country

Number of NTS Scholarships Awarded during 1998-99

S.No.	States/UTs	Quota Allotted	No. of Students Appeared in Second Level Test	No. of Scholarships Awarded (General)	No. of Scholarships Awarded (SC/ST)
1.	Andhra Pradesh	185	172	23	03
2.	Arunachal Pradesh	25	24	—	03
3.	Assam	90	89	06	01
4.	Bihar	175	172	65	08
5.	Delhi	50	48	27	05
6.	Goa	25	24	04	—
7.	Gujarat	170	126	04	01
8.	Haryana	55	54	26	02
9.	Himachal Pradesh	35	35	04	02
10.	Jammu and Kashmir	25	25	—	—
11.	Karnataka	170	164	50	04
12.	Kerala	185	183	39	05
13.	Madhya Pradesh	205	193	32	02
14.	Maharashtra	380	378	138	12
15.	Manipur	25	23	01	02
16.	Meghalaya	25	24	—	01
17.	Mizoram	25	21	—	—
18.	Nagaland	25	22	—	—
19.	Orissa	155	151	33	01
20.	Punjab	85	82	24	01

IDENTIFICATION AND
NURTURING OF TALENT

contd.



Number of NTS Scholarships Awarded during 1998-99 (contd)

Sl. No.	State/UT	1997-98	1998-99	1997-98	1998-99
21.	Rajasthan	105	105	38	03
22.	Sikkim	25	23	—	—
23.	Tamil Nadu	255	236	43	04
24.	Tripura	25	19	—	01
25.	Uttar Pradesh	420	399	67	02
26.	West Bengal	250	235	46	07
27.	A & N Islands	10	06	01	—
28.	Chandigarh	10	10	09	—
29.	Dadra & Nagar Haveli	10	07	—	—
30.	Daman & Diu	10	—	—	—
31.	Lakshadweep	10	—	—	—
32.	Pondicherry	10	10	—	—
		3255	3059	680	70

Total Number of Awardees Getting Scholarships during 1998-99

Senior Secondary Stage

Class XI 750 1500

Class XII 750

Under-Graduate Level

Basic Science 141

Social Science 75

Engg./B.Tech 1748

Medicine 787

Post-Graduate Level

Basic Science 32

Social Science 6

Engg./M.Tech 3

Medicine 8

Management 19

Ph.D. 5

Total 4324

Expenditure during 1998-99

1. Disbursement of Scholarships Rs 85,00,000

2. Conduct of NTS Examination Rs 7,97,932

Total Rs 92,97,932

*Reports and Other Material Brought
Out during 1998-99*

- | | |
|---|--|
| 1. A Follow-up Study of NTS Awardees —
Years 1987-90 (Xeroxed) | 3 An Appraisal of National Talent Search
Examination (Xeroxed) |
| 2. Implementation of the National Talent
Search Scheme (Xeroxed) | 4. Performance Level of Studies at State
and National Level Examinations in
the NTS
(Xeroxed) |



Department of Educational Measurement and Evaluation (DEME)

S.No.	Title of the Programme				Dates	Venue	No.of Participants
1.	2.	3.	4.	5.			
1	Technical/Resource Education Boards etc	Support	to	School	13 to 17 July 1998	SCERT Gurgoan	30
2	Technical/Resource Education Boards	Support	to	School	21 to 25 September 1998	Mizoram Board of School Education Aizawl Mizoram	26
3	Technical/Resource Education Boards	Support	to	School	11 to 13 October 1998	Guwahati Assam	75
4	Technical/Resource Education Boards	Support	to	School	14 to 16 January 1999	ICSSR Complex Punjab University Chandigarh	40
5	Critical Analysis of Question Papers of Boards at +2 stage				8 to 12 February 1999	NIE Campus	32
6	Analysis of Evaluation Practices in Chemistry Practicals at Senior Secondary Stage in various Education Boards of the Country				22 to 26 February 1999	Maharashtra Board of Secondary & Senior Secondary Education Shivaji Nagar Pune	20
7	A Pilot Study to find out the reasons for Non-implementation of CCE in Schools of Elementary Stage				28 January 1999	Deputy Director's Office North West, Hakikat Nagar Delhi Deputy Director's Office South District Block Defence Colony New Delhi	12

X

EXAMINATION REFORMS AND TALENT SEARCH 1999-2000

EXAMINATION REFORMS AND TALENT SEARCH

1999-2000

Examination Reforms

The NCERT is engaged in several activities related to educational measurement and evaluation in the area of Examination Reforms. These programmes in this area are specially directed towards training of key resource persons, papers setters and examiners, developing conceptual and sample material, promoting and conducting research, providing advisory services and performing clearing house functions in the area of educational evaluation. The highlights of the programmes and activities carried out in the area of examination reforms during 1999-2000 are as follows:

Research

Analysis of Senior Secondary Results of Boards

Under this Pilot study, the results of eight boards, i.e. Punjab, HP, MP, Goa, CBSE, ICSE, West Bengal, and Nagaland were analysed. The analysis revealed that the pass percentage of girls was higher than that of boys, the pass percentage was higher in ICSE than other boards; the pass percentage of Goa Board students was higher than other Boards in Science subjects and that in Biology the students got better marks than other science subjects in all the Boards. In CBSE about 56% and in Nagaland only 6% candidates got more than 60% marks.

Relationship between Internal and External Examinations Scores

A total sample of 215 Science students from 18 Senior Secondary Government Schools from both the rural and urban areas of Delhi State was used. The findings indicated that there was significant correlation between the pre-Board and Board examination results, there was no significant difference between the scores of boys and girls in both pre-Board and Board examinations in Sciences and Mathematics but there was significant difference in mean scores of boys and girls in English in Board examination and that there was no significant difference in mean scores in

pre-Board and Board examination of boys, girls, urban and rural candidates in Science, Mathematics and English.

Development

Grading in Schools

A document entitled *Grading in Schools*, was developed to make a technical subject like grading as simple as possible for the benefit of the Boards, teachers and general public. The document is precisely a 'Know all about grading'.

Test items in Environmental Studies (Social Studies) for Class IV

In order to strengthen the evaluation process in the classroom and to overcome the difficulties of teachers in writing good quality questions, the NCERT developed, refined and finalised a pool of question in Environmental Studies (Social Studies) for Class IV. It will be brought out in printed form for wider circulation in primary schools.

Developing a Scheme of Evaluation for Chemistry Practical Evaluation at Senior Secondary Level

An analysis of prevalent evaluation practices in Chemistry practicals across the country was made in the light of the objectives of Chemistry Laboratory Work. Practical worksheets were developed, refined and finalised and a scheme of evaluation Chemistry practical work was developed for senior secondary stage of School Education. The scheme will be disseminated to the Boards of School Education for adopting or adapting.

Training

Training of Paper Setters

Sixty-eight paper setters/examiners of Jammu and Kashmir Board of School Education were trained in developing balanced question papers in English, Science, Social Sciences and Mathematics in a 5-day training programme at Shimla. A report of

the programme consisting of conceptual material on evaluation and question papers developed in the workshop was prepared and discussed

Another training programme in setting of balanced question papers was conducted for 50 paper setters of the Karnataka Secondary Education and Examination Board. The participants were exposed to the concept of evaluation and the various techniques of testing. They developed balanced questions papers in the subjects of English, Hindi, Science, Mathematics and Social Studies. A detailed report was prepared and circulated among the participants.

Training of Teachers in Developing Item Bank

The Higher secondary teachers of the State of Goa were exposed to the technique of developing good questions and preparing item bank. About 60 teachers in the subjects of English, Economics, Geography, Physics, Chemistry, Biology and Mathematics participated in the workshop and developed about 500 questions in each subject during the workshop. These questions will be vetted and finalised and compiled in the form of item pool for the use of the teachers of Goa.

Training of Kendriya Vidyalaya Teachers in CCE

In a two-day Orientation Programme 28 teachers of Kendriya Vidyalayas of Delhi were oriented in the concept and techniques of Continuous and Comprehensive Evaluation (CCE). They were exposed to the various dimensions of CCE like concept, diagnosis and remediation, assessment of non-scholastic areas and development of tools for assessing different aspects of pupil growth. It is expected that these teachers may disseminate this training to other teachers of their schools by action as resource group.

Training in Writing Items for MAT

Two orientation programmes were conducted to train the item writers of the States of Gujarat and Meghalaya in writing items for Mental

Ability Test (MAT) for State Level National Talent Search Examination. The participants in both the workshops developed a large number of items to assess the mental functioning. These items will be reviewed, refined and used for developing an item pool for MAT.

Two-day Conference

A two-day Conference of the Chairpersons of the State Boards of School Education discussed the National Curriculum Framework for School Education, the issues pertaining to grades in place of marks, and setting up a National Evaluation Organisation. The Conference was attended by Chairpersons and key officials from as many as 28 State Boards besides, eminent educationists from all over



A two-day conference of the chairpersons of the State Boards of School Education

the country and officials from the MHRD. The observations of the delegates on the curriculum framework will be incorporated in the curriculum framework. The participants were in agreement that prior to implementing the grading system the COBSE may organise regional workshops in order to create awareness amongst the stakeholders. Regarding the establishment of National Evaluation Organisation (NEO), the delegates were of the opinion that the NCERT may work on the proposal and come out with the specific aims, objectives and structure of the NEO.

Regional Inputs in Examination Reforms

The RIE, Ajmer designed the model blue prints and question papers in Science for upper

primary stage, for the use of DIETs of Rajasthan. These were also developed for secondary stage for Haryana whose KRPs were trained.

The RIE, Bhopal developed a Training Package on Paper Setting in Biology, Chemistry, Physics and Mathematics at Senior Secondary Level.

The RIE, Bhubaneswar developed and standardised language competency test in Hindi and Oriya and organised training on emerging strategies of evaluation of learning outcomes.

Reports and Other Materials Brought Out during 1999-2000

- Grading in Schools (Printed)
- Examination Reform Bulletin Vol II No 2 (Printed)
- Test Items in Environmental Studies (Social Studies) for Class IV (Xeroxed)
- Analysis of Senior Secondary Results of Boards- A Pilot Study (Xeroxed)
- A Study of Relationship between Internal and External Examination Scores of Senior Secondary Students in Delhi (Xeroxed)
- A Scheme of Chemistry Practical for Senior Secondary Level (Xeroxed)
- Analysis of Students' Performance of Different Socio-economic Status in NTS (Xeroxed)
- An Appraisal of NTS Examination, 1999 (Xeroxed)

Identification and Nurturance of Talent

The NCERT, under its National Talent Search (NTS) Scheme, awards 750 scholarships including 70 scholarships for SC/ST candidates each year. The purpose of this scheme is to identify brilliant students at the end of Class X and give them financial assistance towards getting good education so that their talent may develop further and they may serve the discipline of their choice as well as the nation.

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selection is done by the States and UTs through written examination conducted usually between October and December. On the basis of this examination, a stipulated number of candidates are recommended to the NCERT for the second level test. The second stage selection involves both written examination and an interview for the selection of the requisite number of awardees. The NCERT not only awards scholarships to these selected candidates but also organises suitable summer institutes to nurture candidates' talents with the help and cooperation of leading institution of the country.

Number of NTS Scholarships Awarded during 1999-2000

S No	State/UTs	Quota Allotted	No of Candidates Appeared	No of Scholarship Awarded (General)	No of Scholarship Awarded (SC/ST)	Total
1	Andhra Pradesh	185	162	19	2	21
2	Arunachal Pradesh	25	18	01	—	01
3.	Assam	90	89	04	—	04
4	Bihar	175	167	82	12	94
5	Delhi	50	48	27	2	29
6	Goa	25	24	03	—	03
7	Gujarat	170	129	07	—	07
8	Haryana	55	55	25	1	26
9	Himachal Pradesh	35	35	04	1	05
10	Jammu & Kashmir	25	23	—	—	—
11.	Karnataka	170	164	43	3	46
12	Kerala	185	181	26	3	29
13	Madhya Pradesh	205	196	35	6	41
14	Maharashtra	380	374	153	7	160
15	Manipur	25	24	03	2	05
16.	Meghalaya	25	22	—	—	—
17.	Mizoram	25	Examination not conducted			
18.	Nagaland	25	25	01	02	03
19	Orissa	155	151	31	01	32
20	Punjab	85	85	26	02	28

cont'd

S No	State/UTs	Quota Allotted	No of Candidates Appeared	No of Scholarship Awarded (General)	No. of Scholarship Awarded (SC/ST)	Total
21	Rajasthan	105	99	42	05	47
22	Sikkim	25	23	-	01	01
23	Tamil Nadu	255	237	37	03	40
24	Tripura	25	21	02	01	03
25	Uttar Pradesh	420	404	63	07	70
26	West Bengal	250	229	38	07	45
27	A & N Islands	10	09	-	01	01
28	Chandigarh	10	10	08	-	08
29	D & N Haveli	10	08	-	-	-
30	Daman & Diu	10	No candidates recommended			
31	Lakshadweep	10	08	-	-	-
32	Pondicherry	10	10	-	01	01
Total		3255	3030	680	49	750

Total No. of Awardees Getting Scholarship during 1999-2000

+2 Stage	1500
Under Graduate	
Basic Sc.	165
Social Sc	87
Engg	2095
Medicine	896
Post Graduate	
Basic Sc	17
Social Sc	15
Engg /M Tech	02
Medicine	-
Management	23
Total	4710
Expenditure during 1999-2000	
1 Disbursement of Scholarship	- Rs. 1,25,00,000.00
2 Conduct of NTS Examination	- Rs. 10,00,000.00
Total	Rs 1,35,00,000.00

Reports and Other Materials Brought Out during 1999-2000

- Analysis of Students' Performance of Different Socio-Economic Status in National

Talent Search Scheme (Xeroxed)

- An Appraisal of National Talent Search Examination 1999 (Xeroxed)

1
of Education in Measurement and Evaluation (DE)

DLDI, NCBRT
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NAT (N R)

S.No.	Title of the Programme	Dates	Venue	No. of participants
1	2	3	4	5
1.	Development of Test Items in Environmental Studies (Soc. Studies) for Class-IV	6 to 10 September 1999	NCERT Campus New Delhi	13
2.	Technical/Resource Support to School Education Boards/ SCERTs/Directorate of School Education.	5 to 10 October 1999	J&K Board of School Edu., Srinagar	68
3.	Orientation of Item Writers from NE States in MAT Items Construction.	25 to 30 October 1999	NF+RDE Shillong	-
4.	Technical/Resource Support to School Education Boards/ SCERTs/Directorate of School Education.	15 to 16 November 1999	M.P. Board of Sec. Education	-
5.	Technical/Resource Support to School Education Boards/ SCERTs/Directorate of School Education.	22 to 26 November 1999	Karnataka Board of School Education Bangalore	41
6.	Orientation Programme for Central School Teachers of Delhi in CCF.	7 to 8 December 1999	NCERT Campus New Delhi	28
7.	Development of Test Items (Vetting Workshop) in Environmental Studies (Social Studies for Class-IV.	10 to 14 January 2000	NCERT Campus New Delhi	07
8.	Conference on Chairpersons of Boards of School Education of the Country.	24 to 25 February 2000	NCERT Campus New Delhi	75
9.	Orientation of Item Writers of Gujarat State in Mental Ability Test.	28 February to 4 March 2000	Gandhinagar Gujarat	17
10.	Developing a Scheme of Evaluation for Chemistry Practical Examination at Sr. Secondary level.	27 to 31 March, 2000	NCERT Campus New Delhi	17
11.	Technical/Resource Support to School Education Boards/ SCERTs/Directorate of School Education.	27 to 31 March, 2000	Smt. Parvatibhai College of Arts Margao, Goa	-

